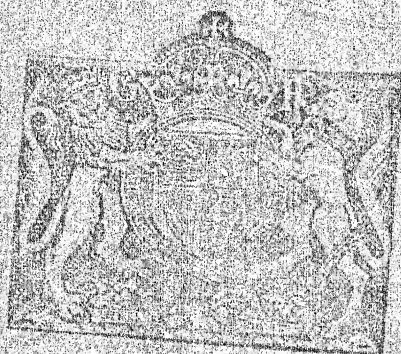


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SUPPLEMENT
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Government Gazette

THE UNITED PROVINCES OF AGRA AND OUDH

ALLAHABAD, SATURDAY, JANUARY 24, 1931

PART VIII

No. 87/X-1211-1929

EDUCATION DEPARTMENT

January 24, 1931

The following report of the Commission appointed by Government under G. O. no. 1537/X-1211, dated October 3, 1929, in pursuance of the resolution regarding the removal of illiterates amongst boys and girls of the province passed by the Legislative Council United Provinces at its meeting held on June 25, 1929, is published for general information.

By order

N. N. MEHTA,

Secretary to Government,
United Provinces

The following persons were to join the Committee when the question of extending literacy among girls was to be considered :—

- (1) Miss H. G. Stuart, M.A., I.E.S., Chief Inspectress of Girls' Schools, United Provinces.
 - (2) Miss Stuart, C. M. S. Girls' School, Jeyi, Meerut.
 - (3) Mrs. J. P. Srivastava, Cawnpore.
 - (4) Khan Bahadur Sheikh Abdullah, M.L.C., Aligarh.
3. The terms of reference of the Committee were :—

- (a) To consider how all the boys of the United Provinces can be made literate within a fixed period; to propose what that period should be, and to draw up an estimate of the cost of making all the boys literate.
- (b) To consider the possibility of making all the girls of the United Provinces literate within a fixed period; if possible to propose what that period should be; to draw up an estimate of the cost of making all the girls of the United Provinces literate, and to estimate what useful expenditure can be incurred during the next five years for the purpose.
- (c) To suggest means for meeting the expenditure necessitated by the estimates prepared under (a) and (b).

II.—Proceedings of the first meeting of the Committee.

The Committee met first at Allahabad on November 26 and 27, 1929.

Members present on November 26, 1929.

1. The Hon'ble Minister of Education, United Provinces (*Chairman*).
2. Mr. A. H. Mackenzie, M.A., B.Sc., C.I.E., Director of Public Instruction, United Provinces.
3. Pandit Gursewak Singh Upadhyaya, Deputy Registrar, Co-operative Societies, United Provinces.
4. Pandit Shri Narain Chaturvedi, Officer on Special Duty, Office of Director of Public Instruction, United Provinces.
5. Saiyid Tufail Ahmad, M.L.C., Saharanpur.
6. Sahibji Maharaj Anand Swarup, Dayal Bagh, Agra.
7. Professor Radha Kamal Mukerji, M.A., Ph.D., Lucknow University, Lucknow.
8. Babu Rama Charana, B.A., LL.B., M.L.C., Daliganj, Lucknow.
9. Babu Shyam Lal, M.A., LL.B., M.L.C., retired Deputy Collector, Nawabganj, Cawnpore.
10. Khan Bahadur Maulvi Fasih-ud-din, B.A., M.L.C., Farshuli Tola, Budaun.
11. Mr. H. R. Harrop, M.A., I.E.S., Deputy Director of Public Instruction, United Provinces (*Secretary*).

Members present on November 27, 1929.

As above and in addition—

1. Thakur Hukum Singh, M.L.C., Muttra.
2. Dr. Zia-ud-din Ahmad, C.I.E., M.A., Ph.D., D.Sc., Aligarh.

The Committee made unanimous recommendations as follows, subject to the confirmation of recommendations 1 to 5 at the next meeting:—

1. The responsibility for vernacular education primarily rests with the Government.

To enable Government to exercise this responsibility amendments should be made in the District Board Act to provide for the following:—

- (1) The election or removal of the chairman of the education committee shall be subject to the approval of the Minister of Education.
- (2) If an education committee in any district or municipality fails in the duty imposed on it by statute the Education department of Government should take over the administration of vernacular education in such district or municipality.
2. There is likely to be an increase of Rs. 40 lakhs per annum in the land revenue due to the re-settlements of seven districts. These settlements are now completed or nearing completion. Half of such increase in the land revenue should be earmarked for the expansion and improvement of primary education and for the removal of illiteracy; and in future also half of such increase due to re-settlements should be similarly earmarked.
3. The increases in court fees and stamp dues which were in force in 1923-24 should be restored. This increase should produce Rs. 40 lakhs per annum. The whole of this amount should be exclusively earmarked for the expansion and improvement of primary education and for the removal of illiteracy.
4. There was an income from the entertainment tax of Rs. 3 lakhs per annum. This tax should be revived and the whole of the income therefrom should be exclusively earmarked for the expansion and improvement of primary education and for the removal of illiteracy.
5. The imposition of the circumstances and property tax should be made compulsory in every district and the proceeds thereof should be exclusively earmarked for use in the district in which it is raised, for the expansion and improvement of primary education and for the removal of illiteracy.

III.—Tour of the non-official members of the Committee.

Between the first meeting in November, 1929 and the second meeting in February, 1930, the non-official members of the Committee visited Meerut on January 6 and 7, 1930, Jhansi on January 8 and 9 and

Benares on January 11 and 12, 1930. They visited the following schools in these districts:—

Meerut.—1. Vernacular Middle School, Machhra.

2. Primary School, Kithore.
3. Islamia Maktab, Kithore.
4. Primary School, Shahjahanpur.
5. Primary School, Nanpur.
6. Primary School, Garhmukhtesar.
7. Girls' School, Garhmukhtesar.
8. Vernacular Middle School, Sardhana.
9. Preparatory Mission School, Sardhana.
10. Primary School, Lashkerganj, Sardhana.
11. Preparatory School, Toga Sarai, Sardhana.
12. Islamia Preparatory School, Sardhana.
13. Depressed Class School, Sardhana.
14. Islamia Maktab, Sardhana.
15. Aided Jain Pathshala, Sardhana.
16. Mission Girls' School, Sardhana.
17. Primary School, Daurala.
18. Girls' School, Daurala.

Jhansi.—1. Municipal Board Sipri Bazar Primary School.

2. Municipal Board Saraswati Pathshala.
3. Municipal Board Sipri Bazar Maktab.
4. Arya Kanya Pathshala (aided).
5. Municipal Board Vernacular Middle School.
6. Municipal Board Unit (Primary) School.
7. Municipal Board Dara Bhondela Primary School.
8. District Board Khailar Primary School.
9. Ditto Talbehat Vernacular Middle School.
10. Ditto Primary Bazar School.
11. Ditto Maktab.
12. Ditto Depressed Class School.
13. Municipal Board Lalitpur Depressed Class School.
14. Ditto Lalitpur Primary School.
15. Mission School, Lalitpur (aided).
16. Ditto for Depressed Class Boys.

Benares.—Middle and Primary Schools at Azmatgarh and Kabir Chaura, the Rural Reconstruction Training School at Bhulanpur, the Primary School at Jagatpur, the Primary and Adult Schools at Chiriagaon, and the Primary School at Shivapur. They also went to Chaubepur; the schools there were closed, but they had a discussion with the teachers.

IV.—Proceedings of the second meeting of the Committee.

THE COMMITTEE MET AT ALLAHABAD ON FEBRUARY 1, 1930.

Present :

1. The Hon'ble Minister of Education and Industries (*President*).
2. Mr. A. H. Mackenzie, M.A., B.Sc., C.I.E., Director of Public Instruction, United Provinces.
3. Pandit Gurusewak Singh Upadhyay, Deputy Registrar, Co-operative Societies, United Provinces, Lucknow.
4. Pandit Shri Narain Chaturvedi, M.A., L.T., Allahabad.
5. Saiyid Tufail Ahmad, M.L.C., Manglaur, district Saharanpur.
6. Sahibji Maharaj Anand Swarup, Dayal Bagh, Agra.
7. Professor Radha Kamal Mukerji, M.A., Ph.D., Lucknow University, Lucknow.
8. Rai Sahib Babu Rama Charana, B.A., LL.B., M.L.C., Daliganj, Lucknow.
9. Rai Bahadur Babu Shyam Lal, M.A., LL.B., M.L.C., retired Deputy Collector, Nawabganj, Carnapore.
10. Khan Bahadur Maulvi Fasih-ud-din, B.A., M.L.C., Faizoli Tola, Budam.
11. Thakur Hukum Singh, M.L.C., Angai, post office Baldeo, Muttra.
12. Dr. Zia-ud-din Ahmad, Aligarh.
13. Thakur Shiva Shankar Singh, post office Rampur, Ghazipur.
14. Mr. H. R. Harrop, M.A., Deputy Director of Public Instruction, United Provinces (*Secretary*).

1. The Committee unanimously agreed that to make primary education universal and compulsory among boys of school-going age additional expenditure of over Rs. 50 lakhs recurring will be required; but some members were of opinion that a sum considerably in excess of this figure would be required for the purpose.

2. The Committee discussed certain resolutions sent to the Secretary of the Committee by S. Tufail Ahmad, M.L.C., for the consideration of the Committee, and resolved that the resolutions together with a note which the Secretary had prepared on them under the President's instructions should be circulated to all members, including the members appointed only for the purpose of discussing literacy for girls.

3. The Committee resolved that a copy of the orders constituting the Board of Vernacular Education should be circulated to all members.

V.—Proceedings of the third meeting of the Committee.

THE COMMITTEE MET AT ALLAHABAD ON THURSDAY AND FRIDAY, JULY 24 AND 25, 1930.

Present on July 24, 1930.

1. Mr. H. R. Harrop, M.A., I.E.S., M.L.C., Director of Public Instruction, United Provinces (*Chairman*).

2. Khan Bahadur Maulvi Fasih-ud-din, M.L.C., Buland.
3. Khan Bahadur Sheikh Abdullah, M.L.C., Aligarh.
4. Saiyid Tufail Ahmad, M.L.C., Saharanpur.
5. Rai Sahib Babu Rama Charana, B.A., LL.B., M.L.C., Lucknow.
6. Thakur Shiva Shankar Singh, M.L.C., Ghazipur.
7. Pandit S. N. Chaturvedi, M.A., L.T., Additional Assistant Director of Public Instruction, United Provinces, Allahabad.
8. Miss H. G. Stuart, M.A., O.B.E., Chief Inspectress of Girls' Schools, United Provinces, Allahabad.
9. Rai Bahadur Shyam Lal, M.A., LL.B., M.L.C., Cawnpore.
10. Thakur Hukum Singh, M.L.C., Muttra.
11. Dr. Zia-ud-din Ahmad, D.Sc., C.I.E., Aligarh.
12. Rai Sahib Pandit Gursewak Singh Upadhyay, Deputy Registrar, Co-operative Societies, United Provinces, Lucknow.
13. Mr. R. S. Weir, M.A., I.E.S., Deputy Director of Public Instruction, United Provinces, Allahabad (*Secretary*).

1. Mr. Harrop read a letter from the Hon'ble Minister for Education regretting that he was unable to attend the meeting and asking Mr. Harrop to preside in his absence.

2. The Chairman recapitulated the proceedings of the Committee from its initiation to date.

3. Since some of the members specially appointed for girls' education were present the Committee proceeded to consider item (b) of the terms of reference, namely, the possibility of making all the girls of the United Provinces literate within a fixed period and to propose what that period should be; and then proceeded to draw up an estimate of the cost of making all the girls of the United Provinces literate and to estimate what useful expenditure can be incurred during the next five years for the purpose.

4. "To consider the possibility of making all the girls of the United Provinces literate within a fixed period; if possible, to propose what that period should be." It was agreed that, given funds, the literacy of the girls could be assured. Khan Bahadur Sheikh Abdullah said it was difficult to fix a period within which this could be achieved. In the country girls come readily to school, but that was not true in towns. Khan Bahadur Fasih-ud-din suggested a period of 10 to 15 years. Miss Stuart said that some 28 lakhs of girls had to be enrolled and a 10-year programme meant 2.8 lakhs per year needing at least 7,000 teachers. There were not 7,000 teachers available in the beginning. The Committee agreed that owing to the shortage of women teachers it would not be possible to hope that all the girls of school-going age could be brought into school within 10 years, but they thought that if rapid progress was made in the establishment of new schools and if there was a large increase in the number of girls passing the various examinations it should be possible to have all the girls in school at latest by the end of 20 and possibly 15 years. The Committee was strongly of opinion that effort should be made without delay to provide necessary funds or a rapid expansion of girls' primary education in order that their

hope of bringing all girls into school at an early date should be realized. Khan Bahadur Sheikh Abdullah desired a definite period to be fixed for the programme, and it was agreed that in calculating the cost a basis of 15 years should be taken.

5. "To draw up an estimate of the cost."

(i) The first point considered was the question of school-going age. It was pointed out that in the Municipal Primary Education Act the age for girls was 6 to 11, but that while in the District Boards Act the same age was given for girls other than Muslims, the age for a Muslim school girl was to be 5 to 9. Khan Bahadur Fasih-ud-din proposed the limits of age to be 6 to 10. After discussion the Committee recommended that in the case of girls the school-going age for the purpose of compulsion should be not less than six and not more than ten years. It was noted that under existing orders girls are admissible into schools at the age of 5, and consequently there will be no objection to the admission of girls at that age. If and when the Acts are amended to give effect to the recommendations of the Committee that the compulsory school-going period should be four years only, then the Education department should revise the curriculum for girls' primary schools to make them literate within four years from the date of their entry into school. The Committee recommended that in the compulsory school-going period of 6 to 10 no distinction should be necessary between Muslim girls and those of other communities.

(ii) The Committee proceeded to fix the number of pupils a teacher should be required to teach. Khan Bahadur Sheikh Abdullah and Rai Bahadur Shyam Lal proposed forty girls per teacher, the same as in the case of boys. Khan Bahadur Fasih-ud-din suggested 35 on roll with 30 in attendance. Miss Stuart pointed out that the present number was 25. The general opinion was that this figure was too low if rapid progress towards literacy is to be achieved. Miss Stuart said that 30 should be the maximum number on roll. If this number is exceeded the results will not be so good as if the number is restricted. Additional numbers per teacher will not produce additional literacy. The main reason for a differentiation between girls and boys is that for some time to come at any rate the qualifications and abilities of the teachers in girls' primary schools are not likely to be equal to those of teachers in boys' schools. The Chairman suggested that for P. T. C. or V. T. C. teachers the numbers might be 40. Miss Stuart disagreed. It was finally resolved by the Committee that in the case of trained teachers the maximum number on roll per teacher should be 35, and in the case of untrained teachers it should be 30.

(Note.—Calculations are on a 35 basis.)

(iii) The training of teachers was next considered. Khan Bahadur Fasih-ud-din wished to abrogate paragraph 205 B, Educational Code, which makes a permanent appointment dependent on possession of a certificate. It was pointed out by Mr. Harrop that the Lower Primary Examination was accepted as a certificate. Khan Bahadur Fasih-ud-din, however, assured the meeting that there were numbers of old men and old women available who would make good teachers in spite of their lack of a certificate. Teacher Hakim Singh, Khan Bahadur Sheikh Abdullah and Miss Stuart held that the rule was an incentive

to teachers to improve their qualifications. Pandit Upadhyia desired the insertion of the word "ordinarily" in the rule. It was finally agreed that the paragraph 205(B) of the Education Code should be amended to read "no uncertificated teacher shall be appointed permanently in a recognized school save with the approval of the Circle Inspectress."

(iv) The Committee next took up the question of the pay of women teachers. Khan Bahadur Sheikh Abdullah suggested that they should have the same pay as the teachers for boys for the same qualifications. Miss Stuart pointed out that the qualifications were different and were, in the case of women teachers, much lower. Khan Bahadur Fasih-ud-din proposed the following urban rates and rural rates:—

			Rs.	Rs.	Rs.
Rural	..	Uncertificated	..	15 to	20
		Certificated ..	..	20 to	25 to 30
Urban	..	Uncertificated	..	15 to	25
		Certificated ..	..	20 to	30

Thakur Hukum Singh proposed the following:—

				Rs.
Primary School Certificate	..	..	..	15 to 20
Middle	"	"	..	20 to 25
Uncertificated	"	..	..	12 to 15

Urban teachers to get Rs. 2 more in each grade. Pandit G. S. Upadhyia said that local rural female teachers were not to be had. They had to be imported from cities. Therefore they should get more pay than in urban areas. The rate of woman's pay should be related to that of men's. Rai Bahadur Babu Shyam Lal said pay was a matter of supply and demand. It was not possible to get women teachers on the salaries quoted. This was not supported by Mr. Upadhyia who pointed out that women locally employed were willing to accept pay as low as Rs. 12 per mensem. The question of differentiation in salary between pay in rural and urban areas was put by the Chair and it was agreed that no differentiation should be made. Khan Bahadur Fasih-ud-din and Pandit Gursewak Singh Upadhyia wished men teachers to induce their wives to train as teachers so that they might be employed in schools with their husbands. Difficulties in the way of this suggestion were discussed. Miss Stuart wished to retain a larger number of grades than those proposed. The grades should correspond to the different qualifications of the teachers. The chairman quoted the existing grades in Government institutions. The Committee finally resolved that suitable scales for teachers in girls' primary schools should range from Rs. 15 to Rs. 30 per mensem, but that these scales should not be rigid, and where teachers could be obtained on lower pay in the peculiar circumstances of the locality there was no objection to such lower pay being given. It was agreed that for the purpose of calculation the average rate of pay for a teacher in a girls' primary school should be taken to be Rs. 20 per mensem, and that such a teacher should teach 35 pupils on the roll. The cost per pupil per annum for the staffing of a girls' school may thus be taken at Rs. 7.

(v) The cost of contingent expenditure was discussed. The Committee finally agreed that for rent, servants and contingencies the following be provided :—

					Re.
In rural areas ..	..	..	\$	2 per pupil per annum.	
In urban areas ..	..	..	\$	2 1/2 3 4 5	

These additions do not include any overhead charges for inspection, increase in middle education, etc.

(vi) Calculations were now made of the direct cost of bringing the girls into school. There are 28 lakhs of girls between 6 to 11 years of age not attending school. Assuming that girls are evenly distributed between these ages, the girls between 6 to 10 would number 24 lakhs. Of these 4 lakhs would for one reason or another be excused attendance. 20 lakhs of girls between 6 to 10 remain to be brought into school and paid for. It was estimated that these would be distributed as follows:—

In urban areas.	In rural areas.
2 lakhs.	18 lakhs.
	Rs.
18 lakhs at Rs. 9 per head	1,62,00,000
2 lakhs at Rs. 10 " " " " " "	20,00,000
	<hr/> 1,82,00,000

This figure was agreed to by the committee as the reasonable additional direct ultimate recurring expenditure necessary to bring to school all girls between the ages of 6 and 10 who could attend school.

(vii) The next question was what sums should be added to this for overhead charges, e.g., increase in middle vernacular education, normal schools, training schools, inspectorate, etc. It was suggested that expenditure on training schools, attendance officers, inspectors, local staffs may be taken at $\frac{1}{4}$ of the direct expenditure, while to allow for expansion for middle education a further $\frac{1}{4}$ of the direct expenditure was needed. It was, however, thought that few girls would seek middle education, and it was agreed to add to the direct cost only $\frac{1}{4}$ to cover all overhead charges and a sum of Rs. 45 lakhs was considered sufficient.

THE ULTIMATE ADDITIONAL COST OF BRINGING INTO SCHOOL ALL GIRLS WHO COULD BE EXPECTED TO ATTEND SCHOOL BETWEEN THE AGES OF SIX AND TEN WAS THUS ESTIMATED AT RS. 227 LAKHS RECURRING.

(viii) The Committee then proceeded to discuss the non-recurring cost. Pandit G. S. Upadhyaya proposed that for the present no provision need be made ordinarily for school buildings. Rented buildings should suffice. He was supported by Thakur Shiva Shankar Singh and by Rai Bahadur Lahu Shyam Lal. He was opposed by Mr. Weir and by Khan Bahadur Sheikh Abdullah who wanted a programme of primary school buildings to be drawn up covering 15 years. Pandit G. S. Upadhyaya said zamindars should be approached and urged to build good.

airy, well-ventilated buildings, being assured that Government would rent these if kept in repair. Khan Bahadur Fasih-ud-din said we must provide buildings. His suggestion was that 20 per cent. of girls' primary schools should be housed in buildings owned by Government or local bodies at the end of 15 years. This was discussed and put to the vote when it was decided to recommend that at the end of 15 years 20 per cent. of the girls' primary schools should be owned by Government or local bodies. The buildings should be dry, airy, well lit and ventilated and sanitary, but simple, cheap and not necessarily pucca. Twenty lakhs of girls are to be accommodated. Consequently if 20 per cent. of these are to be publicly owned buildings and 150 girls are accommodated in each school 2,700 publicly owned school buildings would be needed, of which 270 would be in urban areas and 2,430 in rural areas. It was agreed that urban buildings should be pucca and that rural buildings may be kachcha. Khan Bahadur Fasih-ud-din stated that as a result of their tour round the schools the non-official members of the Committee estimated that a kachcha building would cost Rs. 6 per student and a pucca building would cost Rs. 40 per student. Thus Rs. 1,000 should build a kachcha building with a compound wall for a primary school accommodating 150 girls. An urban school would cost Rs. 6,000. These figures were accepted by the Committee.

Thus 2,430 rural schools at Rs. 1,000 would cost Rs. 24 lakhs approximately and 270 urban schools at Rs. 6,000 would cost Rs. 16 lakhs approximately.

Total .. Rs. 40 lakhs.

(ix) The equipment of the schools was next considered. A figure of Rs. 3 per head was accepted after investigation of figures for existing schools for boys. Khan Bahadur Fasih-ud-din at first thought that Rs. 2 should be enough, but after consideration of the statements and figures presented by the department agreed to Rs. 3. The cost of equipment was consequently estimated at Rs. 60 lakhs (Rs. 3 × 20,00,000). The total non-recurring charges to be met in 15 years were therefore estimated as follows:—

Buildings for 20 per cent. of enrolment	..	..	..	Rs.
Equipment for all	..	..	..	40 lakhs.
				60 ..
Total	..	..	..	100 ..

THE COST OF BRINGING INTO SCHOOL ALL GIRLS BETWEEN THE AGES OF SIX AND TEN WHO CAN ATTEND SCHOOL WAS THUS ESTIMATED AT Rs. 2.27 LAKHS RECURRING AT THE END OF FIFTEEN YEARS, AND DURING THAT PERIOD NON-RECURRING EXPENDITURE OF Rs. 1.00 LAKHS WILL HAVE TO BE MET.

6. "To estimate what useful expenditure can be incurred during the next five years on making girls literate."

(i) Khan Bahadur Fasih-ud-din suggested that the programme for 15 years be taken up at an even rate, i.e., Rs. 15 lakhs yearly recurring increase and Rs. 6.6 lakhs non-recurring. Khan Bahadur Sheikh Abdullah proposed Rs. 25 lakhs a year for the first five years, dividing

it into direct expenditure on primary education Rs. 15 lakhs, non-recurring expenditure Rs. 7 lakhs and training of teachers, etc., Rs. 3 lakhs. Mr. Weir suggested that the initial expenditure should be considerably below the level gradient and that expenditure should rise steeply to the required limit in the last five of the 15 years. Miss Stuart pointed out that there were neither sufficient scholars nor teachers to absorb an expenditure of Rs. 15 lakhs in the first few years whereupon Sheikh Abdullah wished to increase the expenditure on training teachers.

(ii) At this stage the possibility of useful expenditure on the co-education of boys and girls was discussed. That co-education is possible is proved by figures showing that in 1928 while 60,000 girls were reading in the girls' primary schools no fewer than 46,000 girls were reading in boys' schools. The Committee thought that it was possible to expand co-education in villages. It was deemed impossible to do so in towns. To encourage co-education it was suggested that a teacher and his wife should be employed in each school. Various difficulties were pointed out, but it was the opinion of the Committee generally that district boards should be encouraged to expand co-education. Rupees 4 lakhs might profitably be spent on the purpose. Enquiry should be made from district boards as to what extent they could enlarge their primary vernacular schools for boys so as to accommodate girls as well.

(iii) The Committee then took up again the question of what sums could profitably be spent during the first five years' expansion of girls' primary education. Mr. Harrop suggested that the Education department should prepare schemes to absorb Rs. 10 lakhs in the first year. Khan Bahadur Fasih-ud-din proposed the following expenditure during the first five years above the present expenditure on girls' schools :—

Year.	1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.	Rs.
Recurring expenditure ..	6	20	35	55	75
Non-recurring expenditure	4	6	6	8	8
Total	12	26	41	63	83

Khan Bahadur Sheikh Abdullah suggested the following :—

Year.	1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.	Rs.
Mr. Harrop suggested :—	10	15	20	25	30
Girls' primary recurring ..	4	8	16	26	40
All other approved schemes for girls' education and non-recurring charges	11	22	29	34	35
Total	15	30	45	60	75

in addition to present expenditure. It was finally agreed that it was not possible economically to work up to a higher figure than Rs. 40 lakhs recurring of additional expenditure by the end of five years, if this amount were spent on girls' primary education alone, but that as much as possible should be spent on girls' primary education and that funds should be provided for every approved scheme of education for girls, both primary and secondary, at the rate of Rs. 15 lakhs in the first year, increasing by Rs. 15 lakhs each subsequent year.

7. Summary of the proposals regarding girls' education:—

- (1) All girls' of school-going age who can be brought into school should be brought into school by the end of 20 years at the latest.
- (2) For the purpose of calculating the cost a basis of 15 years should be taken.
- (3) The school-going age for compulsory primary education for girls should be 6 to 10.
- (4) A trained teacher should teach 35 pupils, an untrained teacher 30.
- (5) Rule 206(b), Education Code, should be amended to read " No uncertificated teacher should be appointed permanently in a recognized school save with the approval of the Circle Inspectress.
- (6) No differentiation should be made between rural and urban areas in the matter of the pay of teachers.
- (7) Suitable scales of pay should range from Rs. 15 to Rs. 30 per mensem for girls' primary school teachers but there is no objection to lower rates being paid where teachers on lower rates are available.
- (8) For the purposes of estimating the cost the pay of a teacher should be taken as Rs. 20 per mensem.
- (9) The cost of staffing girls' primary schools may be taken at Rs. 7 per girl per annum.
- (10) The cost of direct recurring expenditure on contingencies in girls' primary schools, including rents and repairs may be estimated at Rs. 2 per annum per girl in rural areas and Rs. 3 per annum per girl in urban areas.
- (11) Two lakhs of girls are to be brought into school in urban areas at a direct recurring cost of Rs. 20 lakhs per annum and 18 lakhs of girls are to be brought into school in rural areas at a direct recurring cost of Rs. 162 lakhs per annum, i.e., the total direct recurring cost will be Rs. 182 lakhs.
- (12) Overhead charges of all kinds, including inspecting staff, clerks, training of teachers and additional expenditure on secondary education will cost Rs. 45 lakhs per annum.
- (13) The total recurring cost of bringing into school all girls between the ages of 6 to 10 who can be brought into school will be Rs. 227 lakhs per annum.
- (14) By the end of 15 years 20 per cent. of the girls' schools should be accommodated in buildings owned by Government or local bodies. The cost of a building for 150 girls should be Rs. 1,000 in rural areas and Rs. 6,000 in urban areas.

	Rs
(15) 2,430 rural school buildings will be required which will cost	24 lakhs.
270 urban school buildings will be required which will cost	16 "
Total for buildings in the 15 years	40 lakhs.

- (16) The cost of equipment of all schools may be estimated, at Rs. 3 per girl, to be 60 lakhs.
- (17) The total non-recurring cost is estimated at Rs. 100 lakhs in the first 15 years.
- (18) Boards should be asked to what extent they can utilize funds in spreading co-education in primary schools.
- (19) It is not possible in the first five years to work up economically to a recurring expenditure on girls' primary education exceeding Rs. 10 lakhs above present expenditure but as much as possible should be spent on girls' primary education and funds for every approved scheme of expansion of primary and secondary education for girls should be provided during that period beginning with Rs. 15 lakhs in the first year and rising by Rs. 15 lakhs annually to Rs. 75 lakhs above present expenditure in the fifth year.

Friday, July 25, 1930.

PRESENT:

As on page 5 omitting Miss H. G. Smart, R. S. Babu Rama Charana and Khan Bahadur Sheikh Abdullah.

A telegram was received from Mrs. J. P. Srivastava stating her inability to attend.

8. The Committee then proceeded to consider section (a) of the terms of reference, namely, how all the boys of the United Provinces can be made literate within a fixed period, to propose what that period should be and to draw up an estimate of the cost of making all boys literate. It was agreed that an endeavour should be made to make all boys in the United Provinces literate within the next ten years.

9. Khan Bahadur Fasih-ud-din proposed that the compulsory age for boys should be not 6 to 11 but 6 to 10. Mr. Harrop said this was not only contrary to the general trend of opinion in other countries where the terminal age for compulsory education tended to rise but was contrary to Acts passed by the Legislative Council. Khan Bahadur Fasih-ud-din said his proposal was only a preliminary step. Later the age could be raised to 12 or even 14. Dr. Zia-ud-din Ahmad said that the principle of keeping the age 6 to 11 was correct but that funds were short. He aimed at teaching the three R's. It was desirable to give a working knowledge to a larger number than a greater knowledge to a few. He therefore supported 6 to 10 as the age for compulsion. A suggestion to lower the age still further to 6 to 9 was rejected. Pandit G. S. Upadhyaya remarked that at the meeting of the day before the Committee had recommended 6 to 10 as the age for girls and the public would probably demand 6 to 11 for boys. He thought four years sufficient for a boy of average intelligence but for a dull boy the course should extend till he was 11. The test which would allow a boy to pass out of school should be passing class IV. If a boy failed to pass out of class IV he should stay in school even up to the age of 12. Mr. Harrop pointed out that under the Acts as they stood if a boy passed out of class IV at the age of 10 he could leave school. After further discussion Messrs. Harrop, Weir and Chaturvedi favoured a five-year primary school course and a compulsory age of 6 to 11. Pandit G. S. Upadhyaya, Thakur Hukum Singh

and Thakur Shiva Shankar Singh favoured a four year primary school course but thought that boys should stay till 11 years of age if they do not pass the primary examination earlier. M. Tufail Ahmad, Bai Bahadur Babu Shyam Lal, Khan Bahadur Fasih-ud-din and Dr. Zia-ud-din Ahmad favoured a four-year course and compulsion during the ages of 6 to 10 only. Khan Bahadur Fasih-ud-din stressed the point that the cost would be much higher if boys were required to stay till 11 years of age. The Chairman quoted the quinquennial report for 1922—1927 which gives the following statement of the number of students of each year of age in class IV :—

6 to 7 years	..	..	..	..	42
7 „ 8 „	..	..	..	..	831
8 „ 9 „	..	..	..	..	1,800
9 „ 10 „	..	..	..	..	2,000
10 „ 11 „	..	..	..	..	7,000
11 „ 12 „	..	..	..	..	12,000
12 „ 13 „	..	..	..	..	15,000
13 „ 14 „	..	..	..	..	14,000
14 „ 15 „	..	..	..	..	10,000
15 „ 16 „	..	..	..	..	5,000
Over 16 „	..	..	..	..	4,000

Out of 71,000 children in class IV only 5,000 were 10 years of age or less.

10. The Committee next discussed the numbers for whom provision has yet to be made. The following was finally accepted by the Committee as approximately correct:—

Number of boys between 6 to 11 years of age	..	31.75 lakhs.
Estimate of the number of those already reading	..	9 „

Number to be provided for..	..	31.75 lakhs.
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It may be assumed that one-fifth of these boys will be excused attendance at primary schools for one cause or another	..	4.55 „
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Balance remaining	..	18.2 „
Of these one-fifth must be deducted for a reduction of the age limit from 11 to 10	..	3.64 „

Balance remaining	..	14.56 lakhs.
It was assumed that the existing staff of primary schools can teach in addition to those boys already attending school	..	4 „

Balance remaining	..	13.56 lakhs.
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Thus for a four-year course and a compulsory age 6 to 10 the Committee estimated that provision has to be made for 10½ lakhs of boys. For a five-year course (deducting 4 lakhs from 18.2 lakhs) the Committee estimated that provision was to be made for 14.2 for lakhs of boys. Mr. Weir objected to the deduction of 4 lakhs. He thought that it was not possible with the existing schools and staffs to have 4 lakhs more boys educated.

11. The Committee agreed to take as a basis for calculation 40 boys as the number for which each teacher should be responsible. It was proposed to take the average pay of a primary school teacher as Rs. 20 per mensem. The average yearly pay at present of a primary school teacher is actually Rs. 241. Dr. Zia-ud-din Ahmad proposed the following scales of pay which are in accordance with those now in force in district board schools :—

	Rs.
Untrained teachers	12—1—14
Trained "	17—20
Headmasters of primary schools	22—30

but that half of the cadre should be on the scale of Rs. 12—14. If this was accepted the average cost of a teacher should be calculated as follows :—

	Rs.
Half of the cadre would be on a pay of	241 per annum.
Half of the cadre would be on a pay of	156 "
	<hr/>
	2 | 397
	<hr/>
	199
	<hr/>

Average approximate pay of a primary school teacher Rs. 200 per annum.

Mr. Weir objected to half the cadre being permanently on such low pay, but it was the general sense of the Committee that as a temporary measure Dr. Zia-ud-din Ahmad's figure of Rs. 200 per annum should be accepted as the average pay of a boys' primary school teacher.

12. Discussion next centred on the cost of contingent expenditure in boys' schools including rent and repairs to buildings. The following figures were ultimately accepted :—

	Rs.
Cost of contingencies including rent and repairs for a rural school per class of 40 boys	85 per annum.
Ditto for an urban school	120 " "
The direct cost of teaching 40 boys in a primary school in a rural area was, therefore, estimated at	230 " "
Ditto for urban areas	320 " "

The Committee estimated that nine-tenths of the population of the United Provinces lives in rural areas and therefore estimated the direct cost of teaching a boy in a primary school at Rs. 7·1 per annum.

13. The direct additional recurring expenditure necessary to bring to school all boys who can attend school between the ages of 6 to 11 was accordingly estimated at—

$$14\cdot2 \text{ lakhs} \times \text{Rs. } 7\cdot1 = \text{Rs. } 100\cdot82 \text{ lakhs.}$$

Between the ages of 6 to 10—

$$10\cdot5 \text{ lakhs} \times \text{Rs. } 7\cdot1 = \text{Rs. } 74\cdot55 \text{ lakhs;}$$

or, in round figures, Rs. 101 lakhs and Rs. 75 lakhs respectively.

- (8) For overhead charges, i.e., consequent additional expenditure on vernacular middle education, normal schools, training schools, inspectorate, office staffs, etc., three-eighths of the direct recurring cost of primary education might be accepted.
- (9) The total additional recurring cost of bringing into school all boys between the ages of 5 and 11 will be Rs. 138 lakhs, and for boys between the ages of 6 and 10 Rs. 103 lakhs.
- (10) Cost of building schools for 2.1 lakhs of boys (1.9 lakhs rural boys, .2 lakhs urban) may be estimated at Rs. 19.4 lakhs; for 2.8 lakhs of boys Rs. 27.2 lakhs.
- (11) Equipment for 10.5 lakhs of boys, Rs. 31.5 lakhs; equipment for 14.2 lakhs of boys, Rs. 42.6 lakhs.
- (12) For a five-year period of compulsory education for boys the total additional cost may be taken as —

Recurring..	Rs.
Non-recurring	138 lakhs.
For a four-year course	70 ..
	age limits 6—10.
Recurring..	Rs.
Non-recurring	103 lakhs.
	51 ..

17. The Chairman next drew the attention of the Committee to Government Resolution no. 888/IX, dated June 12, 1930, which says that unless essential services in district boards are to be starved further expansion in primary education can only be financed from provincial funds. The Committee after some discussion resolved that it was improbable that funds for the expansion of primary education would be likely to be available from the resources of district boards and municipal boards. Mr. Harrop thought that the whole cost of primary education for rural areas should be borne by the provincial Government. As regards vernacular middle education it was not necessary to provide this for everybody. Parents could pay to some extent for vernacular middle education and the cost of middle vernacular education should be a charge on local bodies rather than on Government. He recommended, therefore, that Government should relieve the district boards of their present expenditure on primary education and make the whole cost of primary education in rural areas a charge on provincial expenditure. Vernacular middle education should be financed wholly by district boards. The Committee accepted Mr. Harrop's recommendation. It was pointed out that for the past year 1929-30 the total expenditure on vernacular education by district boards was Rs. 109 lakhs.

On vernacular middle education	Rs.
On primary education	18 lakhs.
The Government grant was	91 ..
	73 ..

If Government take over the entire present cost of primary education, they have to find Rs. (91—73), i.e., Rs. 18 lakhs yearly approximately.

The Committee agreed that the distribution of further grants to district boards for primary education should be proportionate to their distance from the ideal condition of universal compulsory primary education—the most backward areas should receive the largest grants.

The district boards will, if the above scheme is accepted by Government, be released of expenditure amounting to Rs. 18 lakhs. The Committee was of opinion that the district boards should be required to spend this amount on the expansion and improvement of middle education for girls and boys. Vernacular middle education for girls should be the first charge on this sum. The Committee recommended that the district boards should continue to act as Government agents in the administration of primary education in their areas. The system of administration should not be changed.

18. The Committee then discussed section (c) of the terms of reference, namely, means for meeting the expenditure necessitated by their estimates. Khan Bahadur Fasih-ud-din said that in other provinces primary education absorbed 60 per cent. of the educational budget, but in the United Provinces only 44 per cent. This figure should be raised to 50 per cent, at least. A crore of rupees should be spent yearly on primary education. If Government cannot curtail the other items they should increase primary education grants till they are half the total Education budget. It was noted that the United Provinces Government spends two crores of rupees annually on education out of a total provincial revenue of some Rs. 12½ crores. Khan Bahadur Fasih-ud-din's proposal was not adopted. The Khan Bahadur then stated that Rs. 60 lakhs of increase of provincial revenue were already in sight from enhanced land revenue and Rs. 40 lakhs more could be anticipated. Half of this, he said, should be earmarked for primary education. The Committee accepted this recommendation. The Committee then confirmed the following resolutions passed by it in its meeting of November 1929, viz.:—

- (1) There is likely to be an increase of Rs. 40 lakhs per annum in the land revenue due to the re-settlements of seven districts. These settlements are now completed or nearing completion. Half of such increase in the land revenue should be earmarked for the expansion and improvement of primary education and for the removal of illiteracy; and in future also half of such increase due to re-settlements should be similarly earmarked.
- (2) The increase in court-fees and stamps dues which were in force in 1923-24 should be restored. This increase should produce Rs. 40 lakhs per annum. The whole of this amount should be exclusively earmarked for the expansion and improvement of primary education and for the removal of illiteracy.
- (3) There was an income from the entertainment tax of Rs. 3 lakhs per annum. This tax should be revived and the whole of the income therefrom should be exclusively earmarked for the expansion and improvement of primary education and for the removal of illiteracy.

- (4) From the sources so recommended the Committee anticipated that at least Rs. 80 lakhs recurring would be available for primary education. But according to the Committee's estimate at least Rs. 3.3 crores recurring are necessary and consequently Rs. 2.5 crores recurring remain to be found. The Committee did not consider that it was necessary to indicate whence further sums could be found by the United Provinces. The Government of India is in control of all the elastic sources of revenue and the Government of India should contribute towards provincial expenditure on education. But the Rs. 80 lakhs recurring indicated should be made available at once for primary education and spent on it. When the Government of India have contributed towards the provincial expenditure, it can be considered what, if any, additional funds should be found from provincial revenues.

R. S. WEIR,

Secretary.

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CO-OPERATIVE DEPARTMENT.

January 22, 1931.

The following note, prepared by Sir Ralph Oakden, Kt.,
C.S.I., is published for general information.

By order,
V. N. MEHTA,
*Secretary to Government,
United Provinces.*

NOTE ON RURAL RECONSTRUCTION.

INTRODUCTORY.

The chief purpose of this note is to give some account of what is being done in this province for rural development, or, as it is variously called, rural reconstruction, or village uplift, for the use of Government and of those interested in the movement.

2. Rural reconstruction is not the subject of any annual report, nor is it the care of any particular department of Government. A good deal of the work which is being done is not dealt with in any published report, and I have had to obtain much of my information from inquiries and from special reports which individual officers who are interested in the subject have kindly prepared for me.

3. The vast importance of this subject is recognized by Government. In the words of His Excellency Sir Malcolm Hailey:—"The city is not after all the real India." Her future lies not in the further urbanizing of her social conditions, but rather in a quickening of the spirit of the countryside and in the achievement by men with a rural character and upbringing of their due place in national life." When it is realized that out of 45 million people in the province, 40 millions, that is more than nine-tenths, live in the country and that agriculture is the mainstay of about 75 per cent. of the population, most people will agree that the importance of the problem of rural development can hardly be exaggerated. Its extent and complexity may be gauged by the fact that there are 104,347 villages in the province, while there are only 345 towns.

4. I do not suggest that the country has been neglected. Thousands of miles of canals and their distributaries are silent witnesses to the contrary. Railways and roads enable the cultivator to put his produce on the market, and by providing means of import, protect him from the worst effects of drought. Government have given him, so far as laws and rules can give them, stability of tenure and a fair and stable revenue and rent, and have tried to protect him by an elaborate system of land records. Hospitals have been opened, and 15,000 schools provide him with an opportunity of educating his children. A Royal Commission has examined his agricultural needs, and agricultural experts have produced better seeds and more suitable agricultural implements, and have indicated improved methods, while co-operative societies have tried to give him cheaper credit.

5. But with all these material benefits and facilities the villager remains much the same. It is the purpose of rural reconstruction to help him to make a better and more intelligent use of the facilities and opportunities which are offered him, and thereby to enable to raise

himself to a higher economic level and to a higher standard of life. Nothing lasting can be done unless he wants it to be done. Legislation and demonstrations can produce no permanent effect until the villager himself realizes the need for change and sees for himself that increased prosperity and comfort will result from a more rational arrangement of rural life.

6. The first task therefore of any constructive scheme is to overcome the inertia of ignorance, apathy and old custom. This is bound to be a slow process, and any attempt to force the pace unduly is more likely to hinder than to advance the movement. Experience has shown that the villager is not adverse to change or improvement when once he is satisfied that the change will really benefit him, but ignorance and the risk of trying something new makes him very cautious.

PREVIOUS INQUIRY.

7. The last occasion on which the general problem of rural progress was formally considered by Government was in 1926. The political situation created by the reforms of 1921 had aroused misgivings to meet which Government instituted an inquiry as to the possibilities of reorganization. Primarily the idea was political, and the purpose was not so much to improve the countryside for its own benefit, as to make it a better political instrument. The inquiry was based on the following considerations:—

- (1) that the political structure must rest on a rural electorate;
- (2) that this electorate was utterly unfitted to take up the burden; and
- (3) that it was extremely doubtful if existing agencies were going to make it fit.

"So great" runs the letter to Commissioners "are the difficulties which all schemes for development and progress encounter for the lack of organization and enlightenment among the people generally, that the Government feel bound to ask themselves whether any fresh means of advance remain to be tried. Some advisers hold that the main, if not the only, need of the situation is money others while recognizing that progress is conditional on the provision of funds, consider that lack of money is not the most important obstacle. They believe that the main task is to enlist, at the outset in selected areas, the active co-operation of all public-minded and enthusiastic volunteer workers in a campaign of study, advice and propaganda. They think that the main task is to persuade the rural population to believe in their own capacity for progress and to make efforts to attain it. Their idea is to call into existence district development committees composed of officials and non-officials who should survey local conditions, suggest promising lines of advance, collect money either for propaganda or for particular undertakings, advise the district board, tour and lecture in favour of particular causes, issue reports and generally keep the idea of progress before people's minds."

8. The replies of Commissioners and district officers were not very encouraging, though some useful suggestions were made. Some officers thought that development committees would lead to nothing but friction with the district boards; that the district board ought to be the development board, but would be useless as such; that no one believes in the efficacy of a non-official body; that enthusiastic workers are not to be found; others regretted the divorce of the district officer from the district board and placed their hope for the development on co-operative societies or the village panchayat, and a few favoured the idea of working through district boards. Several officers drew up schemes involving the creation of a new department of Government and large expenditure, without definite hope of any adequate return, and others recommended concentration on accessible groups of villages and their development by the existing agencies.

9. In the end no action was taken and the papers were deposited with the hope that there might arise here or there spontaneous agencies which would make a beginning.

DISTRICT BOARDS.

10. Under section 91, United Provinces District Boards Act, 1922 (Act X of 1922), among the duties of district boards are:—The provision of hospitals, dispensaries, schools and veterinary hospitals, the maintenance of roads and the improvement of communications, the breeding and medical treatment of cattle and horses, and all measures for the improvement and assistance of agriculture and industries, water supply, vaccination, sanitation and the prevention of disease, the dissemination of knowledge regarding such matters as disease, hygiene and cattle-breeding. In other words, the advancement of the countryside is by law the duty of district boards.

11. Their practical activities are limited to schools, hospitals, veterinary hospitals, roads, horse and cattle-breeding and vaccination, and in some cases to district health operations. Even for these services their resources are inadequate, and it is impossible to expect very much advance in the near future.

12. Under the United Provinces Village Sanitation Act, 1892 (Act II of 1892), as amended by United Provinces Act (V of 1929), the district officer's authority, except in times of epidemic diseases, is limited to drinking wells. The responsibility of district boards for sanitary measures in rural areas has recently been emphasized by Government (G. O. no. 719/XVI—158 of September 23, 1929) and boards have been directed to make byelaws requiring the annual cleaning of wells. Sanitary byelaws for their adoption are also under consideration. As they have no machinery for the enforcement of byelaws, except one sanitary inspector in each tahsil in districts under the District Health scheme, the practical results are not likely to be very great.

13. The triennial report for the years 1926-1929 shows that the expenditure by district boards on public health in 1928-29 amounted only to 5½ lakhs, or barely 2½ per cent. of their own funds, but it is stated that "considerable progress has been made, particularly in those districts where the Health scheme is in force, in the improvement of sanitation and water supply in villages, in the efficacy of the measures taken to suppress epidemic diseases, and in spreading a knowledge of, and engendering a desire for, more sanitary and healthy conditions. The efforts of the district authorities to engage the interest of panchayats in sanitary improvements have met with appreciable success, and in many villages now the panchayats out of their own funds employ one or more sweepers. The 'village aid' scheme started by the Public Health department at the end of 1920 has already become remarkably popular, and if properly encouraged and supported by the boards should be a most valuable means of hygiene propaganda."

14. There does not, however, seem much hope that district boards will do much for rural reconstruction. A sub-committee for this kind of work could be set up under section 56, but hitherto I believe that the Bijnor district board alone has set up such a committee, and I am unable to say whether it is working on lines which are likely to be successful or not. Such a committee will be useless unless it includes local officers of the Agricultural, Co-operative, Educational and other departments, and also local gentlemen of influence who are interested in the subject but are not members of the board. I am afraid that the elective principle with its disruptive and frictional tendencies will be a fatal hindrance to much advance under the aegis of district boards, apart from the fact that most boards are short of funds and have already more duties than they can perform. Where a district board is willing and able to take up this work it should be encouraged to do so, and should take the place of the district organization society (to which I shall refer later), but the district board committee which deals with reconstruction should include the local officers mentioned above.

15. I will now give some account of what is being done by the departments which are mainly concerned with rural welfare, namely, education, agriculture, co-operative and public health.

CO-OPERATIVE.

16. It is a mistake to connect co-operation only with credit societies. Co-operation is a method or way of doing things and is applicable to almost any economic or social endeavour in which men combine for their mutual good. Its definition as "an association of individuals to secure a common economic end by honest means" (Strickland—Introduction to Co-operation in India) has been extended, and the co-operative method is now also applied in practice to social and educational activities. It is the opposite of individualism and differs from socialism or communism in that it does not subordinate the individual

to a kind of bogey called the State. It does not say "Do this because it is for the good of the State," but "Do this because it is for your good and for the good of those who are working with you". The co-operative method is very attractive, specially in theory, and I do not wish to decry either its utility or its attractiveness, but the application of its principles to specific activities is complicated and difficult, its demands are great and the discipline which it imposes on its votaries is severe.

17. There were last year (1923-24) 5,320 agricultural credit societies with a membership of 127,500 and a capital of Rs. 1,03,44,635, but this number includes "a large number of useless societies which are such only in name". Yet the Punjab with half the population has 19,400 societies with a membership of 6½ lakhs and a working capital of Rs. 1,600 lakhs. We must accept it as a fact that the co-operative movement here has not been so successful as was hoped, though in places, e.g., the Tarai and Bhabar, there has been considerable success, and we must regret that the department has to busy itself in lopping off dead branches and tending stunted growths instead of guiding the healthy progress of strong trees.

18. There is an excellent account of the co-operative movement in these provinces in Chapter VI of the report of the United Provinces Provincial Banking Inquiry Committee. Paragraph 317 contains some very sound suggestions for future action.

19. The department has recently ventured into schemes of rural development, and the report for 1923-29 shows 26 societies for rural reconstruction or better living. The work is admittedly experimental and is confined to the districts of Partabgarh, Benares and Lucknow. It is the declared intention of the department to go slow and to avoid the old mistakes of starting societies broadcast without adequate means of supervision. I quote the Registrar's words:—

"The desire to spread the benefits of rural reconstruction as widely as possible is intelligible, but I fear that in our enthusiasm we are likely to make the same mistake as we made some years ago in the spread of co-operation, and the result may be the same. I think it is a sounder policy to cover the whole of one or two districts instead of dissipating our energies trying to do a little here or a little there in order to please people, or because the ground appears to be favourable owing to the presence of some temporary factors. If by organized and systematic development we can really improve conditions in one district as a whole, that would show us the way to success elsewhere."

20. I give below a more detailed account of the work in these districts.

21. The main-spring of the movement is Pandit Gursewak Singh Upadhyaya, Deputy Registrar of Co-operative Societies.

22. In Partabgarh and Benares there is a district rural reconstruction association, of which the district officer is president, consist-

ing of a number of non-officials and the local representatives of the departments connected directly with village welfare, namely, co-operative, agriculture, health, education (district board), court of wards, cattle-breeding and well-boring.

23. The objects of these associations are given in Appendix A.

24. It is not quite clear how far they are actively working, but even if the actual work is being done by departmental officers and others, it is very useful, or rather it is essential to have a central body which can co-ordinate and stimulate energies and deal authoritatively with any questions that may be referred to it.

PARTABGARH.

25. Intensive work is being done in five centres by the co-operative department, aided mainly by the officers of the Agricultural and Public Health departments. The most striking features of the work are:—

- (1) the concentration of efforts on selected areas;
- (2) the combination of energy by the officers of all departments directly concerned with village welfare.

26. I visited three such villages, Khajuri, Pura Ajmer (Bishnathganj) and Sangramgarh. All were remarkably clean. No heaps of rubbish or manure, sanitary hollows largely filled up, soakage pits constructed in place of cesspools, large areas of improved crops, use of improved implements for agriculture, village medical aid, etc.

27. The method is co-operative, and there is in each village a reconstruction society in which nearly every family is represented, e. g., in Khajuri 70 out of 80 families were represented, in Bishnathganj 26 out of 28, and in Sangramgarh 121 out of 123. There is a general panchayat of nine or ten members with subordinate panchayats or committees for (1) agriculture, (2) sanitation, (3) adult education, (4) physical culture, (5) arbitration, (6) community singing.

28. The objects of a village reconstruction society are given in Appendix B.

29. I note below the chief activities of these societies and their results:—

(1) *Agriculture*.—Increasing use of better seed and improved implements, better cultivation, storage of manure in pits in fields, use of silo pits, well-boring.

(2) *Sanitation and medical*.—Cleaner villages, no manure pits, soakage pits instead of cesspools, the removal of pigs, the repair and cleaning of wells by joint labour, distribution of medicine under the village aid system.

(3) *Adult education*.—This is done in evening classes by a selected teacher and consists not only of literary work, but of general instruction. The result is said to show itself in greater receptivity of new ideas and a general widening of view.

(4) *Physical culture*.—Consists in teaching various indigenous stick games, wrestling, etc.

(5) *Community singing*.—Hymns, songs, etc., are taught and sung; also short plays are acted.

30. In addition to the above among practical results may be cited a reduction in expenditure on marriages (seven cases were cited at Pura Ajmer), Thakurs using the plough themselves, settlement of disputes by arbitration and a general desire for improvement.

31. There are five centres of activity in the district, and the results in 1929-30 may be briefly summed up as follows:—Improved seed was sown in 4,138 bighas, 2,340 manure pits were dug, 894 patients were treated under the village aid system, 97 soakage pits were made, 124 adults were under instruction in seven schools, twelve wells were improved and 153 were disinfected, 87 village aiders, 24 *dais* and six village guides were trained, and eighteen agricultural implements were jointly purchased.

32. A training class, mainly for supervisors of the Co-operative department, has been opened at the Government Demonstration Farm, and practical training is given in every kind of agricultural operation. A large area of the farm is worked entirely by the students who do all the work themselves, including ploughing. This is a sound move and will do something towards removing the ignorance of agriculture and lack of sympathy with village life on the part of the co-operative staff to which the Co-operative Committee of 1925 drew special attention. Theoretical and general instruction is also given.

BENARES.

33. A district rural reconstruction association was founded in 1929 at the instance of Mr. V. N. Mehta, the Collector. Twelve rural societies have been registered and ten more have been organized. In 1928-29 the membership increased from 250 to 576. About a dozen night schools have been started and in eighteen months nearly 300 illiterate persons aged eighteen to 40 are said to have learnt to read and write.

A class for training workers was started in November, 1928. Twenty district board teachers and five others have taken a six months course of rural economics, co-operation, village administration, the theory and practice of adult education, theoretical and practical farming, first aid, scouting, etc. This class is managed by the Co-operative department and receives an annual grant of Rs. 4,500 from Government. It corresponds to the rural school of economy at Gurgaon.

34. The Commissioner (Mr. E. F. Oppenheim) who has visited four villages writes:—"I was favourably impressed with what I saw. The workers have undoubtedly won the confidence of the villagers. The villagers themselves are keen on the work. They have gained

confidence and self-respect. I do not think that much is possible for many years to improve village sanitation. So long as the mud house is the rule a high standard of cleanliness is almost impossible. On the other hand, a good deal has been done to make village life happier. As regards your last question I think it most desirable to expand the movement."

35. The Collector (Mr. B. E. Dreyfus) has inspected six societies and says:—"The work is going on well, and I think that the idea is a promising one. At my suggestion the Agricultural department are taking special interest in these villages and have kept a stock of improved implements in each of them. This year I am arranging for distribution of improved sugarcane seed. The district health staff are also running their village aid scheme as a branch of the societies' activities in some of the centres, and it will be extended to others as funds permit. The adult education class is proving a success and is popular. Physical culture appliances have been purchased from a sum of Rs. 1,500 allotted by Government and a tournament is being held in the first week of March. In many of the villages the societies have been invested with powers under the Village Panchayat Act and members are encouraged to decide their disputes by arbitration instead of going to the regular courts.

The defect at present is that a very few non-officials take any interest in the movement. As you know, most of the big landholders are not residents, but live in Benares itself. They rarely visit their villages and leave the work of management to their karindas. The movement will have to be done through official agency for some years to come, and it is doubtful whether it will survive if that support is withdrawn."

LUCKNOW.

36. Mr. H. G. Walton, the Commissioner, has kindly visited most of the reconstructive villages. His views are given below:—

"The Deputy Commissioner, Mr. J. E. Pedley, and after him Mr. A. Monro, have shown interest in village improvement work. I understand that a district committee is being or has been formed.

The first village which I saw is Bahargaon, where I was accompanied by Pandit Gursewak Singh Upadhyaya and the District Medical Health Officer. There was also an agricultural assistant present and a representative of the Educational department. The village is held by pattidars who appeared to be tolerantly amused with the new fangled scheme. I gathered, however, that there had been some ill-feeling at one time. The village has a fine open space in its middle and some attempt had been made to segregate the cattle.

The village walls are well decorated with elementary sanitary and such like advice written up in Hindi. There are plenty of soakage pits which carry the sullage water from houses. Manure is stored outside the village site. There is also a model village shop

the owner of which keeps his wares in neatly arranged empty kerosene tins: he has 24 moral maxims written down in a little notebook and I suppose refreshes his memory of these before he does any business. They have a medicine box which is dispensed by the chief man in the movement; registers of births and deaths are also kept. But there are two deep pits from which the village was originally dug, which must breed mosquitos. I suggested stocking these with chilwas.

"On the agricultural side they have 100 acres under Pusa wheat which was a fine sight; they said that they had grown improved cotton and they have some Meston ploughs. They hope to establish a seed store.

"There is a night school presided over by a head teacher from a neighbouring village—they have no ordinary village school. There were about 25 men attending the school. I did not inquire how many of them had already imbibed instruction in their childhood. The pupils narrated the neighbourly deeds which they had recently done, including assistance at a fair in the vicinity.

"On the whole, this village presented a very encouraging appearance, and I think that the inhabitants were genuinely interested in the movement and satisfied with the progress made.

"37. The next village which I saw was Chandpur, belonging to the Raja of Itaunja, who was present and inclined to be helpful. It was a much poorer village than Bahargaon. A night school is held here also, and the pupils showed their games which they play as adult scouts. They have not so many soakage pits as Bahargaon, and they have no agricultural improvements to display. It was somewhat curious that they seemed to be so little interested in the agricultural enterprise of Bahargaon which is quite near. I gathered that the movement is less advanced here than in Bargadua. I suggested they should go and visit Bahargaon.

"At the request of the District Medical Health Officer I looked at Bargadua. Here the Co-operative department has not got to work and this village contrasted very unfavourably with Bahargaon, and even Chandpur. It has two sanitary wells, a hospital box, and a *dzi*—also a few soakage pits, but it struck me as being very dirty and it seemed absurd to pursue minor sanitary improvements while people were still digging earth out of a noisome pit. In this village the people did not seem to be interested—partly, perhaps, because the only activities were sanitary and partly because the people's co-operation had not been obtained.

"I saw also Dhauwara and Marui in the Mohanlalganj area. Dhauwara has a library and adult school, a garden, soakage pits, and external manure pits. But the village did not strike me as clean and the garden did not amount to much. Marui was better—I think the population is chiefly lowish caste. They also had the usual accessories of soakage pits and external manure pits.

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"I have been thinking about what I have seen and I have discussed the movement with Indian friends. One gentleman said that he foresaw the time when each village would have a sort of council of elders—responsible substantial tenants who would guide and lead public opinion—giving advice to people who were in trouble with their zamindars or other folk, and keeping them out of foolish litigation. Another said that the result he foresaw was a council of workers which would set at naught all kinds of authority. It seems to me that the experiment should be tried. Where they have a better living society the panch should also be the judicial panchayat under the Act; this would give them more authority. Also in the old days there used to be village school committees which might be revised and made over to the panch. If there is to be power there will be more enthusiasm for the movement. The mukhia might ordinarily be the sarpanch, and he might also be made a correspondent regarding crops to the Agriculture department.

"Village uplift will not work unless agricultural improvement be made the chief feature of the organisation—for the people are most interested in it and may accept the movement if they can be sure that it will benefit them materially.

"I have my doubts about the reality of adult education. Many of the pupils produced for inspection are probably men who had attended village schools as boys. The books used were in some instances childish.

"What I saw was good. But I do not quite see how it is to be extended so as to have any appreciable effect on the country side. The difficulties are money and men. The zamindars will not, I think, help with money, and the district boards cannot, even if they would.

"The Court of Wards can and does do something in well-to-do estates. It does not amount to much when the enormous area of the provinces is considered. In fact, I do not see who can find the money unless better living societies are prepared to find it themselves and to this extent it might be worthwhile going on with the work in the hope that the neighbours of the villages already undergoing experiment may feel inclined to pursue a higher degree of comfort."

COST.

38. It is very difficult to estimate the cost of the work which is being done in these districts, because the greater part of it is done by officers who are paid from other sources and do this work in addition to their ordinary duties. The actual extra cost at present is consequently small and consists mainly of Rs. 10 to Rs. 15 per mensem for each adult school.

39. As regards the cost of extension the Registrar estimates that if development runs on present lines and existing co-operative societies are converted into reconstruction societies all that will be required

is to decrease the size of the supervisor's circle from 30 to 15 societies and provide for teachers for adult schools. But as the area of operations extends more inspectors will also be wanted and existing societies will not be available for conversion.

40. It is estimated that ultimately at least one guide will be required for each group of 25 to 30 villages and one inspector for every five guides. Thus for 150 villages the cost per mensem would be Rs. 150 for the inspector and Rs. 250 for five village guides, or a total of about Rs. 5,000 per annum apart from the cost of adult education. During the early period a larger staff would be necessary. At this rate the cost of dealing with all the villages of the province, apart from the extra superior staff that would be necessary, amounts to 350 lakhs a year. This does not take into account the extra agricultural and sanitary staff which will be necessary to assist the Co-operative department. These figures show that any wide expansion of this scheme is out of the question and that its chief advantage may be said to consist in its educational value, and the influence it may have in inducing people to improve their surroundings by their own efforts. If it is found that surrounding villages do not copy the example of the selected villages, and either ask for the formation of similar societies or adopt their methods, the experiment may be classed as a failure.

41. I give below brief accounts of other uplift activities which have come to my notice.

42. In the Ajudhia estate, Fyzabad, a beginning is being made under the direction of Pandit Kashi Nath, Court of Wards Special Manager. It is not being done on the intensive lines adopted in Partabgarh, and it is primarily based on co-operative reconstruction societies. Adult education is being given in seven villages; scouts have been started in 21 schools; 8,000 manure pits outside villages have been dug; successful efforts to popularise better cane seed, the Persian wheel and improved type of sugarcane mills have been made.

43. In Gonda a model village called "Meri Umed" has been constituted by the Court of Wards at the suggestion of Mr. B. J. K. Hallows, the Deputy Commissioner, and is reported to be a success, and to be stimulating interest in improved dwellings. The main features are: detached, better ventilated and conveniently planned houses, an uncultivated belt for grazing, threshing floors, playgrounds, etc., a central "panchayat ghar" a drainage system, a school, a garden for which two mali tenants are responsible, and a co-operative society. A few simple sanitary rules have been made, and are being enforced by the panchayat which consists of four panches with the school-master as sarpanch.

44. Mr. Krishna Prasad, Collector of Bulandshahr, is taking great interest in the uplift movement in that district, but work is still in an experimental stage and has not been organized, and is at present hindered by the civil disobedience campaign. There is as yet no

combined effort by the different departments. The co-operative movement has been a failure, and the district board recently passed a resolution that the district health scheme is doing no good and should be abolished.

45. In agricultural advance there has been considerable activity. A number of farms have been started, many tube wells are under construction, and several hundred Persian wheels (rahat) are being worked, most of them by camels, which the Collector says are both more efficient and more economical than bullocks. Extensive boring operations have been started and 40 bulls for breeding purposes are being supplied to landholders, who have undertaken to look after them.

46. A physical culture scheme was inaugurated last year, and the committee have employed a whole-time instructor to teach indigenous and other simple games, physical exercises in schools and villages. His efforts have extended to 138 schools and 73 villages. Government have contributed Rs. 2,000, and the district board is giving Rs. 800 annually.

47. The staff seems to have devoted their energies mainly to cleaning up villages. It is the practice to select 48 villages and to require each sanitary inspector to clean four villages each month. A considerable number of manure pits have been dug, and bye-laws have been framed by the district board requiring people of villages in which the health staff have operated to keep their manure in pits outside the village. The Collector has seen hundreds of such pits and says that villagers are getting into the way of taking their sweepings, etc., to them, but that apart from this the people are not living a more sanitary life. The work of cleaning, filling up hollows, constructing rubbish pits, etc., is done by the labour gangs, which are permanently employed. The village-aid system has been introduced, 642 village aiders and 248 *dais* are said to have been trained, and 74 medicine boxes have been prepared.

48. It is thus clear that a good deal is being done in this district, but without better organization a good deal of the effort will be wasted. It is not of much use to clean up a village unless the people are going to keep it clean. "It is irksome," the Collector remarks, "for villagers to go to a distance to deposit their rubbish. If the public health scheme were abolished the pits would cease to be used." In other words, public opinion has not yet been educated.

49. In Meerut, through the efforts of Mr. D. J. K. Coghill, Joint Magistrate, a Rural Development Association has been formed with 72 life members who have paid Rs 50 each and 420 ordinary members who pay Rs. 3 per annum. The Collector is president of the executive committee which consists of landholders and officials of the Revenue, Agriculture, Public Health, Co-operative, Court of Wards, Education and Canal departments. The objects of the Association are given in Appendix D.

50. Work has begun in seven villages which have been selected as centres, and four teachers have been trained at the Benares Rural Training Class and have been appointed in selected villages for propaganda purposes. If the district health scheme is introduced the Public Health department have arranged to apply it to these villages first. Men trained in Gurgaon are being obtained as village guiders, and it is expected that the Ingraham Institute at Ghaziabad will be able to keep up a supply of trained men. These "guiders" will work permanently in one or two villages until the work can be handed over either to some influential man or men or to a panchayat. The main-spring of action is to interest zamindars and others who are connected with villages rather than to departmentalize.

51. For funds the Association is relying on a recurring Government grant and a small income of about a thousand rupees a year from members' subscription.

52. The Association, as will be seen from the above, provides the necessary co-ordinating organization and has started work on the right lines, namely, by concentration on selected centres and by obtaining the co-operation of those departments of Government which are interested in rural advance.

53. In Farrukhabad uplift co-operative societies have been formed in six villages, mainly through the efforts of the Inspector of Co-operative Societies with the help of officers of other departments. The societies have adopted resolutions to give up gambling and liquor, to curtail ceremonial expenses, to clean their wells yearly, to store manure in pits, to settle disputes amicably, to use improved seed and implements, to keep their villages clean, to improve their cattle, to stop child marriages, and encourage thrift. These resolutions are supposed to be enforced by the panchayats, i.e., the executive committees of societies, who can impose fines.

54. The movement is at present experimental, and has not made much progress and there is a lack of funds. Some work has been done, e.g., each village has a first-aid dispensary, two adult schools have been started, and in several villages there are *seva dals* or social service volunteers. Improved implements have been purchased, and improved seed and sugarcane are being popularized.

FATEHPUR.

55. A co-operative better-farming society has been started in Fatehpur. This is the first example in this province of a type of society which has been remarkably successful in the Punjab. "One of the strongest recommendations of the Royal Commission is that they should be tried in other provinces. The members pledge themselves to follow the advice of the Agriculture department in cultivating their land and to carry out a programme of agricultural improvement prepared for them by the expert staff."

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56. In Pilibhit a Rural Uplift Committee has been formed and efforts are being made to remove manure pits outside the *abadi*, to improve village lanes, and fill up pits.

AGRICULTURE.

57. No department has a closer connexion with rural development than that of agriculture. Agriculture is almost the sole source of rural wealth, and the economic advancement of the cultivator is directly, and his moral and social progress is indirectly, bound up with it.

58. Rural development is vitally dependent both on the experimental work of agricultural experts and on the department's ability to secure the adoption of the results of their work by the cultivators themselves. Unless the latter object is attained all the efforts made are in vain. The Director is fully alive to this. In the report for the year ending June, 1928, he writes :—" I have examined thoroughly that part of the Royal Commission's report dealing with demonstration and propaganda. I think the usefulness of departmental farms has been understated, but I go further than the report as regards village demonstration. I am convinced that no advance *whatever* is possible without a wide expansion of this method of educating the agricultural worker. It has been, and always will be, the central feature of our work. Village demonstration is increasing satisfactorily in these provinces. I have often pointed out in debates in the Legislative Council and in these reports that all sections of the department are organized to lead up to it. The following statement shows the increase in the area on which it has been carried out during the last five years :—

				Acres.
1924	...	...	...	56,910
1925	...	...	...	79,218
1926	...	...	...	125,836
1927	...	...	...	122,125
1928	...	...	...	195,430

" The report of the Royal Commission contains a useful review of the methods of demonstration employed in different parts of India. An examination of this material leads to the following conclusions as far as the United Provinces is concerned :—

- (1) The method now widely used in these provinces of demonstration carried out by the department on land hired from the cultivator is best suited for the early stages of the introduction of new methods under village conditions ;
- (2) such demonstration should be concentrated in definite areas or groups of villages ;
- (3) when an improvement has proved successful and has been established in a number of villages by this means it can be extended in fresh places by demonstration carried out

by the cultivator on his own land under the guidance of the departmental staff."

59. Close contact with the "reconstruction" work of the Co-operative department was a feature of the demonstration work in the Eastern Circle, and the staff of the department took an active part in the work of the adult education societies in Benares and Partabgarh. The Director considers that such societies can be made valuable instruments for spreading agricultural improvements to rural areas if worked in conjunction with field demonstrations, and that the Agricultural department possesses the organization in its demonstration staff to make good use of them. There are now seventeen agricultural associations which work in close contact with the Department of Agriculture in demonstration, and the use of improved seed, implements and methods.

60. The estimated area under improved crops introduced by the Agricultural department is—

	Acres.
Wheat	1,115,000
Cotton	210,000
Barley	36,000
Grain	46,000
Kharif crops	82,000
Total	<u>1,489,000</u>

The Director considers Rs. 10 per acre to be a conservative estimate of the increase obtained by the combined effect of better varieties and improved cultivation. On this basis the increased returns for the above area will be in a normal year Rs. 148.9 lakhs.

61. Improved varieties of sugarcane, one of the notable successes of the department, were sown in 514,699 acres. The Director estimates the increased value of the outturn at Rs. 150.7 lakhs. Thus the total increase from improved crops amounts to approximately Rs. 300 lakhs in a normal year. This figure is bound to increase, because the sowing of improved seed is spreading rapidly. Where improved cane has been sown the increased profit is so obvious that the old varieties are falling into disuse.

62. Farms, if run properly, are very useful as demonstrations. They help the ordinary cultivator to get better seed and teach him better methods of cultivation. There are now 859 privately-owned farms worked with the advice of the Agricultural department. I visited the farms at Mundia and Gokan in Shahjahanpur. The history of the improved cane in the former village was interesting. Beginning with two acres it increased to 75 acres in the fourth year, and in five years had completely driven out the old varieties, not only from Mundia but from all the neighbourhood. In both villages

150,000 would every year pass out of class IV instead of 36,000 as at present ("Primary Education" by H. R. Harrop, 1928).

Stagnation is ascribed to irregular attendance and to inefficient and ineffective teaching. Irregular attendance is partly due to the ignorance and apathy of the parents and partly to their opinion that their sons are not obtaining the kind of teaching which will make them better farmers. It is said that Government are now taking steps to provide the right kind of education and are altering the system so as to make it of more practical use, and to adopt the teaching of reading, writing and arithmetic to the improvement of agriculture (vide answer to Council question no. 39 by the Minister for Education on July 14, 1930).

74. Government have also introduced a new subject called "rural knowledge" into the curriculum of vernacular middle schools. The teaching of this subject will begin this year. Teachers have been trained in the village training class at Benares. An alternative remedy is compulsory education. This has been introduced in various areas in 26 districts, apart from certain municipal areas, but a general system of compulsory education is financially impracticable at present. A system of compulsory education for those who have commenced to attend school might have good results, and is likely to have a better educational effect than compulsory education in limited areas. It would, at any rate, if properly applied, make the attendance figures a less illusory index of literacy, and would remove one of the flaws of local compulsion, namely, that of educating the menial classes, who, in existing economic and school conditions, are as a class best left out of the educational scheme.

75. If it had been found possible to deal with this problem successfully when it was first raised 25 years ago there would not be the present need for adult schools, and literate cultivators would be an important factor in the countryside. How far Government are justified in increasing their grants to primary education until this problem is solved is a matter for serious consideration. The obvious reply is "How can we improve education if no increased grants are given?" I agree that there is a good deal in this answer, but it is quite clear that the improvement of existing institutions and present methods is now more important than the opening of new schools.

76. *Pari passu* with education should come libraries. A man who has learnt to read will soon forget what he has learnt unless he continues to read. Very few villagers have access to libraries or the means of purchasing books. It has been brought to my notice that there are very few books written in a sufficiently simple style for village readers. Measures for supplementing this deficiency are necessary. There are circulating libraries in five districts. Pilibhit, Jalaun, Gorakhpur, Banda and Etawah—which from the number of books issued seem to be popular, and 199 middle school libraries.

Adult education.

77. Only a small beginning has been made. In the Partabgarh scheme it is regarded as an essential adjunct to the re-construction society, but suitable teachers are scarce: in other districts wherever village advancement is being tried, it is part of the programme. But only the fringe has been touched, and owing to difficulties in getting suitable teachers, and in arranging for inspection, and to the enormous expense that any appreciable extension would entail it is unlikely to be possible to tackle the problem effectively. It is in fact an attempt to make up for the deficiencies of the past, and as such must take a back place when compared with efforts to make up the deficiencies of the present and future. Moreover, mere literary education has very little effect. General instruction with the purpose of widening their outlook in the more important matter of daily life is the main requisite. Adults cannot be taught like children and soon tire of a teacher who can only teach them like children. Consequently the more interested officers of the agriculture, co-operative, public health and other departments take in such schools by means of lectures and practical advice the better the results are likely to be.

Public Health department.

78. The importance of this department in any scheme of rural advancement cannot be overestimated. Health is the foundation of any scheme of public welfare. Material prosperity and ultimately even political power depend on the physical fitness of the people and their capacity for work.

79. The rural activities of the Public Health department have increased greatly with the introduction of the district health scheme. This scheme has now been introduced into 28 districts, in each of which the usual staff is a district medical officer of health, an assistant medical officer, and a sanitary inspector for each tahsil. In some districts labour gangs are also employed. The duties of the staff are

(a) to combat epidemics, and

(b) to improve the sanitation and water supply of villages and the health of the people generally.

Propaganda is a special feature of the work and is controlled by the Hygiene Publicity Bureau. A good deal of lecturing with and without the aid of the cinema is done, and efforts are made to stimulate what the Director calls "sanitary consciousness."

80. Departmental officers co-operate readily with anyone, official or non-official, who is ready to push on their work, and they rely a good deal on district officers and their subordinates. They are working with the co-operative department in the re-construction scheme in Benares, Partabgarh and Lucknow, are ready to help any district officer who starts an "uplift" association or organizes any kind of village advancement.

81. The village aid scheme (see appendix C) has been put in operation wholly in 64 villages, and partially in 3,085 villages in the 28 districts under the district health scheme. The figures given me show that 18,521 village aiders have been trained, also 3,606 teachers, 706 scout masters, 8,282 patwaris, constables and chaukidars and 4,504 village *dais*, and that there are 1,199 first-aid dispensaries. It is impossible to say how much of this work will have a permanent value. Some efforts are of the window-dressing variety, e.g., the construction of soakage pits, which will not function for more than 4 to 6 months, and of rubbish pits which the people will not use. The practical result of the training of aiders, teachers, etc., is also an unknown factor.

82. The present cost of the district health scheme for 28 districts is Rs. 6,30,693, of which the share paid by district boards is Rs. 58,506. In a note on the "Future Expansion of the Public Health departments" the Director estimates the total cost to Government when the scheme is extended to all districts in the province at Rs. 11,12,000, excluding the cost of travelling dispensaries. He debits the cost of labour gangs only to district boards, namely, Rs. 1,55,000, excluding the cost of vaccination. Thus the extra annual recurring cost to Government will be about 5 lakhs when the scheme is complete. There is no doubt that this scheme should be applied to all districts. It is invaluable in epidemics and is essential to any project of rural reconstruction. Whether it is a sound principle to limit extensions in the future to those districts, whose boards are willing to contribute one-third of the cost, is a matter of opinion. But so much can be safely laid down, namely, that so long as any districts are willing to contribute a third of the cost the scheme should be extended to them in preference to districts which are unwilling to contribute. The Board of Public Health have recently sanctioned funds for three years to enable the scheme to be extended to four districts which are contributing one-third of the cost.

83. The Board of Public Health distribute about 2½ lakhs annually for works of sanitary improvement in rural areas. The practice is to give money only for those works to which half the total cost is contributed locally. An exception is made in the case of work done by panchayats, but, so far as possible, the principle of helping those who help themselves, is followed.

84. In future it might be sound to limit grants to villages which have some organization, such as a panchayat, or a reconstruction society, etc.

85. District officers were recently asked by the Director of Public Health to report on the sanitary improvement in rural areas carried out by various agencies, including village panchayats, with an account of the action taken under the Village Sanitation Act, and suggestions for further advance. The replies show that in most districts there is very little improvement and that very little is

being done. In Partabgarh and Bulandshahr appreciable progress has been made, and in Muttra, Moradabad, Pilibhit, Fatehpur, Unao, Hardoi, Sultanpur, Fyzabad, Naini Tal and Benares a great deal of useful work has been done. All these districts (except Pilibhit) are under the district health scheme. The improvements made consist mainly in the repair, etc., of wells, the construction of manure pits and soakage pits, the removal of rubbish heaps, the opening village aid dispensaries, the training of *dais*, and the employment of sweepers, but only comparatively few villages in a district are affected, and even in the best districts it cannot be said that more than the fringe of insanitation has been touched. Nearly everywhere it is an uphill fight against deep-rooted conservatism and inherent apathy.

86. It is very difficult to value the work done, and to distinguish between permanent and ephemeral efforts. Thus in many districts, teachers, aiders, patwaris, mukhias, etc., are said to have been trained, but the extent of their training and their utility when trained is unknown.

87. Thousands of pits for rubbish have been made, but are they used? The Deputy Commissioner of Fyzabad states that in the Ajodhia estate 8,350 such pits were dug and that it is difficult to get the villagers to use them. In several villages he verified the fact that they were not used.

88. The village aid system has been widely introduced in some districts, and many drinking wells have been improved. A considerable number of soakage pits have been constructed but they require overhauling every 4 to 6 months, and there is nothing to show whether they are kept in order or are discarded and converted again into cesspools. In the majority of districts very little advance is being made, and it is very rare to find that any initiation is being taken by district boards. Such work as is being done is generally due to the efforts of the Public Health staff and of occasional enthusiasts.

89. Many officers point out that district boards are now primarily responsible for village sanitation and that they should make rules, that the Collector and the revenue staff, who could do most, are no longer concerned with sanitation, that the responsibility should be restored to the Collector, that no effective machinery exists for enforcing rules, that there is no hope for improvement till public opinion has been educated to insist on it, that party feeling in panchayats hinders progress, and that panchayats are reluctant to exercise their powers. Some officers approve of the appointment of sweepers by panchayats: others think that ordinarily its absorption in this way will leave nothing for works of public utility. It is pointed out that soakage pits require overhauling after 4 or 5 months when they become choked and are discarded or converted again into cesspools, that panchayats, if left to themselves, would spend their money on road repairs which appeal to

them more than sanitary improvements. In one district where over 8,000 manure pits were dug, the district officer states that it is difficult to get the people to use them and that in many places, as he himself verified, they are not used at all.

90. There is a general absence of constructive proposals and there are practically no suggestions as to the line that further advance should take, except that intensive propaganda is necessary for overcoming prejudice, and that keen propagandists are wanted for this work.

PANCHAYATS.

91. There were on September 30, 1929, 4,779 village panchayats. They are established to "assist in the administration of civil and criminal justice, and also to effect improvements in the sanitation and other common concerns of villages". Thus their primary function is to decide petty cases, and judging from the number of cases decided by them last year, namely, 1,13,400, they seem to be performing useful duties.

92. Under section 65 of the United Provinces Village Panchayats Act, 1920 (Act VI of 1920) it is the duty of the panchayat to arrange within its circle, subject to rules made by Government, for the improvement of education, public health and the supply of drinking water and for the maintenance of village tracks and works of public utility. Funds are provided from the village fund, which consists of fees, fines and contributions from Government, local bodies or private persons. District and divisional reports on their progress are encouraging.

93. In the Agra division they took a keen interest in the improvement of village sanitation, such as construction and repair of wells, filling up of depressions and repairs of village paths, meeting the expense out of their funds, supplemented by private subscriptions.

94. In Bareilly they are described as a great benefit to the public, but the movement is said to flourish only where it receives official encouragement and guidance. In some of the districts of this division they showed commendable zeal in dealing with village sanitary problems and in carrying out sanitary works from money supplied by the Board of Public Health.

95. All district reports in the Benares division show that progress has been made, but recognize the need of close supervision.

96. In the Lucknow and Fyzabad divisions their working is generally satisfactory, and they "serve a definitely useful purpose both in the settlement of petty disputes and in the exercise of minor executive functions and have a real educative value in the villages."

97. A general survey of their work in the province shows that though irregularities and party factions and indifference mar their utility in places, they have proved a very useful institution. No progress is possible in the country side unless there is in the village

some authority which can deal with the various sanitary and public works which affect village life. The lambardar and the mukhia have neither executive power nor money, and where there is no panchayat there is no authority and no person whose duty it is to fill up a hole in a village lane, or to repair the village drinking well.

98. The panchayat supplies a real need in village administration, and should be fostered and encouraged. Grants for village works given by the Board of Public Health should be limited to villages which have a panchayat or some kind of rural reconstruction society. Supervision is required, but not interference, as it is necessary to encourage self-reliance. Being residents of the village, the members of the panchayat are themselves affected by village improvements, and except in very isolated instances are not likely to defy the opinion of their neighbour by squandering their funds on useless works. It might be possible later on to combine panchayats into groups or unions under a group panchayat with powers of supervision and control.

99. Where there is a rural reconstruction society, the panchayat should be composed of members of the society selected by it, and appointed on its selection by the appointing authority. This will provide a modified form of election without the disadvantages of a regulated election, which is unsuitable in villages. The usual method is to appoint persons recommended by the tahsildar or kanungo. Panchayats so selected should have jurisdiction only in the village to which the society belongs.

RURAL DEVELOPMENT BOARD.

100. There is a Development Board, but it has never functioned. It is necessary that there should be some central authority to deal with rural reconstruction and to co-ordinate the headquarters departments in the same way as a district association co-ordinates the work of the local departmental officers, and to exercise a general control and supervision over the district work. A mere advisory board is useless. Its resolutions carry little weight with the departments and its labours are apt to be infructuous. If the Development Board is reconstituted, any funds which Government are prepared to spend on rural reconstruction and money included in the co-operative and education or other budgets for uplift work and adult education, etc., should be placed at its disposal. It will then exercise real functions and will have vitality, like the Board of Public Health, which is the only Board now in existence which, to my knowledge, is performing really useful work.

101. It should be constituted on the lines of the Rural Community Board in the Punjab (vide appendix E), but it will not be desirable to start district associations everywhere as in the Punjab, until more experience has been gained from existing district associations.

The preceding pages show that a good deal of work is being done in various ways for rural development, but it is largely experimental

and tentative and some times haphazard. In some cases it lacks organization and in others owing to the absence of any recognized authority to carry it on there is likely to be little lasting effect.

103. *District organization.*—The district board is the proper district authority for reconstruction work, but for inaptitude and lack of funds such boards are unlikely to render much assistance. It is, therefore, necessary to form some kind of district association.

104. This association is required to co-ordinate, and guide and assist departmental and non-official energies, to supervise and control the village authorities, and to interest in village development landholders and others who are concerned with the advancement of the countryside.

105. Such an association should ordinarily be registered either under the Co-operative Societies Act 1912 (Act II of 1912) or the Indian Companies Act, 1913 (Act VII of 1913) (section 26), or under the Societies Registration Act, 1860 (Act XXI of 1860). It might be desirable for Government to refuse recognition or aid to an unregistered association, but this is a point which requires consideration.

106. *Village organization.*—A village organization or authority is essential. This is necessary to stabilize the work done and to safeguard it against relapse and to extend it. It would probably be unwise to insist upon any standard form of organization. Where there is a village reconstruction society, this will be suitable; in other cases the panchayat appointed under the United Provinces Village Panchayat Act, 1920 (Act VI of 1920); in others a panchayat *ad hoc*; in others an influential landholder, or any one or two suitable men. The main thing is to secure some form of responsible authority in the village capable of keeping advancement up to a reasonable pitch of efficiency and of preventing relapse.

107. The best forms of organization are in my opinion the reconstruction society and the panchayat. The range of the former is wider as it covers or can cover all rural activities, while the latter is concerned mainly with the settlement of disputes and works of sanitation and public utility. There is no reason why the legal power of a panchayat should not be conferred on selected members of a reconstruction society and I think that this should ordinarily be done.

SUMMARY.

1. In conclusion I recommend that—

- (1) The Development Board be reconstituted (paragraph 100).
- (2) District associations be formed in those districts where local interest has been stimulated (paragraph 103).
- (3) Village panchayats or better living societies be extended (paragraphs 98 and 99).
- (4) The district public health scheme be extended to districts which subscribe one-third of the cost (paragraph 82).

- (5) The problem of rural advancement be attacked simultaneously from different directions to yield substantial results.
- (6) Constructive work should be intensive and should be concentrated on specific villages or areas.
- (7) All departments and agencies should pool their activities and work in close co-operation in such areas.
- (8) Extension should not be made haphazard, but in accordance with the sufficiency of funds and the means of preventing relapse.
- (9) Departmental agencies should not be hampered by requiring them to adopt co-operative methods other than in selected areas.

2. It should be realized that it is financially impossible for Government to do more than show the way, and that future developments must depend largely on the people themselves and on the influence of local associations and reconstruction areas and on their ability to show that their methods are good and worthy of adoption elsewhere. In the same way that improved varieties of sugarcane and wheat have spread from village to village by reason of their proved value, so should reconstruction and uplift societies prove that they can give something valuable which the neighbouring villages have not got.

3. When a district or lesser area has organized an association, and has begun actual work, there are several ways in which Government can help. Suitable officers can be posted to the district or their services can be lent, and financial help can be given for the training of workers, for adult schools, for sanitary improvements, for the pay of workers and so on. Grants should not, however, be given unless local efforts show that there is a real desire for improvement, and that a start has been made, and they should be withdrawn if the work stagnates, or fails to show vitality.

R. OAKDEN.

December 1, 1930.

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APPENDIX A.

(Paragraph 23.)

The ordinary objects of district rural reconstruction associations are —

- (a) to organize co-operative rural reconstruction societies in the district (for objects of such societies, see byelaws thereof);
- (b) to arrange for training persons for rural reconstruction work in the district and for propaganda;
- (c) to arrange for facilitating the operations of registered rural reconstruction societies by—
 - (i) the co-ordination of activities in the district of the district board, agricultural, industrial, co-operative, sanitary and other departments of rural welfare;
 - (ii) the provision of necessary funds;
 - (iii) issuing tracts to supply the necessary information about rural reconstruction;
 - (iv) other measures designed to improve the work and extend the usefulness of such societies.

Bylaws of the.....Rural Re-construction Society, Limited.

Tahsil.....District.....

NAME.

1. This society shall be called theCo-operative Rural Re-construction Society, Limited, and its registered address shall be at.....Post Office, Tahsil..... District.....

OBJECTS.

2. Its objects are to promote the economic, social and educational interests of its members by re-organizing the community life of the village generally and more particularly—

- (1) to improve the physical, social, and moral condition of the members and their efficiency generally;
- (2) to introduce improvements in agriculture and in cattle husbandry;
- (3) to introduce improvements in cottage industries, to improve communications and ensure improved marketing of village produce;
- (4) to assist in arrangements for the education of members and their children and for their training in the art of expression through games, songs, dramas, design and worship and all other useful occupations which render the life of the community more pleasant and liberal;
- (5) to spread correct knowledge about laws of hygiene, of human nutrition, and about infectious diseases; also to undertake welfare work for expectant mothers and children;
- (6) to provide means for the equitable settlement of disputes and thereby discourage unnecessary and frivolous litigation; and
- (7) to promote other measures designed to encourage in the members the spirit and practice of thrift, mutual help and self-help.

MEMBERSHIP.

3. The members shall consist of—

- (1) persons who join in the application for registration;
- (2) persons admitted in accordance with these bylaws.

4. Every member of the society must be—

- (1) ordinarily resident in
- (2) a good character; and
- (3) of not less than 18 years of age except in the case of the minor heir of a deceased member.

5. Members shall be admitted after election by the managing committee, subject to the confirmation of the general meeting.

6. Every member shall pay one rupee a year as membership fee and sign his name or make his thumb-impression in the register of members before two witnesses, or shall submit a signed application witnessed by two members.

7. Every member shall sign an agreement to the effect that in consequence of being a member of the..... Co-operative Rural Re-construction Society he will observe such special rules and practices as the general meeting may approve; and in the event of his breach of this undertaking he will pay to the society such fine not exceeding Rs. 100 as the committee may impose.

He shall thereupon share in the rights and liabilities of the society.

8. Membership shall be terminated by—

- (1) death;
- (2) permanently ceasing to reside in
- (3) withdrawal after three months' notice to the Secretary;
- (4) permanent insanity; and
- (5) expulsion by a two-thirds majority of a meeting at which not less than half the members are present and vote.

9. A member may be expelled for any action which may be held by the managing committee and general meeting to be dishonest or contrary to the stated objects of the society or to the interests of co-operation.

10. The liability of each member for the debts of the society shall be limited to Rs. 20.

11. The capital shall be composed of—

- (1) membership fee;
- (2) contributions;
- (3) donations;
- (4) fines.

The society shall receive no loans or deposits.

12. The committee may impose a fine not exceeding Rs. 100 on any member who fails to observe the rules and practices prescribed by the general meeting.

13. The committee may levy contributions from a member on the occasion of ceremonies taking place in his family or household, according to a scale to be prescribed by a general meeting. Such contributions shall become immediately due for payment on the occurrence of

the ceremony, without a formal demand. The committee may also levy such other contributions from members and at such rates as the general meeting may fix from time to time in order to carry out the objects of the society.

GENERAL MEETING.

14. The supreme authority shall be vested in the general meeting which shall be held at the time of annual audit or in August, and at other times, when summoned by the Registrar or the President, or by the committee of their own motion or at the written request of not less than 10 members.

The presence of at least one-fourth of the members shall be necessary for the disposal of any business at such meetings, provided that where the total number of members exceeds 100, twenty-five members shall suffice.

15. In a general meeting the following business shall be transacted :—

- (1) the election, suspension and removal of members of the managing committee including a President and one or more Vice-Presidents ;
- (2) the election of a Treasurer to keep the money of the society ;
- (3) the consideration of the annual statement of accounts and balance-sheet and of auditor's report and the inspection notes of the Registrar and the inspector ;
- (4) the confirmation of the admission and expulsion of members ;
- (5) the adoption of customs to be observed, the fixing of the maximum expenditure to be incurred on each ceremonial occasion ;
- (6) the approval of rules and practices to be followed in order to carry out the objects of the society ;
- (7) the assessment of contributions to be paid to the funds of the society by a member on the occasion of ceremonies occurring in his family or household, such as marriage, birth, etc., assessment of other contributions in order to carry out the objects of the society ;
- (8) the amendment of the bylaws subject to the sanction of the Registrar.

16. Amendment of the bylaws shall only be carried by a majority of a meeting at which not less than two-thirds of the members are present : provided that when the amendment has received the previous approval of the Registrar it may be adopted by a majority consisting of two-thirds of the members present at a general meeting held after due notice of the proposed amendment has been given to the members. All other questions before the general meeting shall be decided by a majority of votes. When votes are equal the chairman shall have a casting vote.

17. Each member shall have one vote. No proxies shall be allowed, but a member may send in a written and signed opinion on any question affecting him that is under discussion. This opinion shall not be counted as a vote. No member shall be entitled to vote from whom any fine is due to the society.

18. All business discussed or decided at a general meeting shall be recorded in a proceedings book which shall be signed by the chairman of the meeting.

MANAGING COMMITTEE.

19. The managing committee shall consist of at least five members of the society over the age of 21, including a president and one or more vice-presidents. The members shall be elected for one year and shall be eligible for re-election.

20. A member of the committee shall cease to hold office if he—

- (1) ceases to be a member of the society ;
- (2) becomes of unsound mind ;
- (3) if convicted of any offence involving dishonesty or is imprisoned for three months ;
- (4) holds any office or place of profit under the society or received any honorarium.

21. Meetings of the committee shall be held when necessary. The attendance of at least three members shall be required for the disposal of any business. The president or vice-president or in their absence one of the other members shall preside. Each member shall have one vote. The chairman shall have a casting vote.

22. The committee shall exercise all the powers of the society except those reserved for the general meeting, subject to any regulations or restrictions duly laid down by the society in a general meeting or in the bylaws; and in particular shall have the following powers and duties :—

- (1) to observe in all their transactions the Act, the notified rules and these bylaws ;
- (2) to maintain true and accurate accounts of all money received and expended ;
- (3) to keep a true account of the assets and liabilities of the society ;
- (4) to keep a register of members correct and up to date ;
- (5) to prepare and lay before the annual general meeting a profit and loss account and a balance sheet ;
- (6) to examine the accounts, sanction contingent expenditure, and supervise the maintenance of the prescribed register ;
- (7) to consider the inspection notes of the Registrar and his subordinates and take necessary action ;

- (8) to elect new members subject to the confirmation of a general meeting ;
- (9) to summon general meetings in accordance with bylaw 14 ;
- (10) to levy contributions from members as prescribed in bylaw 13 ;
- (11) to fine members as prescribed in bylaw 12, who fail to abide by the rules and practices adopted in general meeting, or who spend on any ceremony a sum larger than that sanctioned ;
- (12) to consider and propose to the general meeting such sanitary, hygienic or moral rules, such improved customs and such reductions of expenditure as they consider beneficial and in accordance with the objects of the society ;
- (13) to assist in arrangements for education, games, songs, etc.
- (14) to assist in the inspection of the books by any person authorized to see them ;
- (15) to appoint, suspend or dismiss employees ;
- (16) through any member or officer or employee of the society or any other person specially authorised to institute, conduct, defend, compromise, refer to arbitration or abandon legal proceedings by or against the society or committee or the officers or employees concerning the affairs of the society ;
- (17) to acquire on behalf of the society shares in registered central co-operative societies ;
- (18) generally to carry on business of the society. In their conduct of the affairs of the society the committee shall exercise the prudence and diligence of ordinary men of business and shall be responsible for any loss sustained through acts contrary to the law, the notified rules and the bylaws.

23. All business discussed or decided at a meeting of the committee shall be recorded in a proceedings book which shall be signed by the chairman of the meeting and all the members of the committee present.

SECRETARY.

24. The committee shall appoint a secretary who, if he is not a member of the committee, may receive pay or an honorarium with the sanction of the general meeting.

25. The powers and duties of the Secretary shall be as follows:—

- (1) to maintain correctly and up to date the prescribed papers and registers ;
- (2) to prepare all receipts, vouchers, and documents required by the notified rules or these bylaws or called for by the committee ;

- (3) to sign on behalf of the society and conduct its correspondence ;
- (4) to summon and attend general meeting of the committee ;
- (5) to record the proceedings of such meetings and have them duly signed ;
- (6) to prepare the annual statement ;
- (7) to certify copies of entries in books under bylaw 26.

REGISTERS.

26. The following registers and papers shall be maintained :—

- (1) a register of members, showing the name, address, and occupation of every member, the date of his admission to membership, and (if a minor) his age at that date, and the date of termination of his membership ;
- (2) a register of agreements in which every member on admission shall sign his name or make his thumb-impression ;
- (3) a cash-book showing the receipts, expenditure, and balance on each day on which business is done ;
- (4) a minute book showing the proceedings of general meetings and committee meetings and notes of inspecting officers ;
- (5) a register of approved rules, practices and customs, and approved expenditure on ceremonies.

27. The registers and papers of the society shall be open to the inspection of anyone interested in the funds. Copies of the bylaws and of the balance-sheet, and of resolutions showing any approved custom or approved maximum expenditure, shall be supplied free on demand to any member.

TREASURER.

28. The treasurer shall take charge of all money received by the society from members and from others and shall make disbursements in accordance with the directions of the committee. He shall sign the cash-book in token of its correctness and produce the cash balance whenever called upon to do so by the committee or auditor.

EMPLOYMENTS OF FUNDS.

29. The funds of the society may be devoted to the promotion of the stated objects of the society and to the purpose set forth in bylaw 30.

30. Such sum shall be contributed to the audit fund as the Registrar or the Provincial Co-operative Union from time to time may decide.

DISPUTES.

31. Any disputes concerning these bylaws or the business of the society between members or past members of the society or persons claiming through them or between a member or past member or person so claiming and the committee or any officer shall be referred to the Registrar as provided in the rules notified by the local Government.

LIQUIDATION.

32. The society shall be liquidated only by order of the Registrar under section 39 of the Act.

After discharging the liabilities of the society the surplus shall be applied to such object of local and public utility as may be selected by the members of dissolved society and approved by the Registrar. If within six months of the dissolution of the society the members fail to select an object that is approved by the Registrar the latter may deposit the amount in some co-operative or other bank for not more than a year if a new co-operative society with a similar area of operations is likely to be registered, in which case it shall be credited to the funds of the new society, otherwise he may spend it on works of public utility in villages in the district, preferably through the Central Association.

APPENDIX B.

(Paragraph 28.)

The objects of a village re-construction society are:—

- (1) To introduce improvements in agriculture, in the condition of cattle and in cottage industries on modern lines as far as possible and suitable.
- (2) To improve communications and introduce such labour-saving devices or machinery as are not detrimental to health.
- (3) To improve the physical, social and moral condition of members and their efficiency generally.
- (4) To assist in arrangements for the education of members and their children and for their training in the art of expression through games, songs, dramas, design and worship and all other useful occupations which render the life of the community more pleasant and liberal.
- (5) To teach and practice the rules of hygiene and combat epidemic diseases.
- (6) To provide means for the equitable settlement of disputes and thereby discourage unnecessary and frivolous litigation.
- (7) To promote other measures designed to encourage in the members the spirit and practice of thrift, mutual help and self-help.

APPENDIX C.

(Paragraph 81.)

VILLAGE AID,

The scheme of Village Aid introduced by Dr. A. Sousa, F.R.C.S. (EDIN.), D.P.H., (IRE.), Assistant Director of Public Health, which is being adopted successfully in the Lucknow district.

PATWARI circles close to headquarters and to each tahsil are selected and in these the following measures are taken :—

I.—Training of village aiders.

(a) Two adult boys preferably sons of mukhia, chaukidar or influential persons in each village of the selected circle, are trained in First Aid in Sanitation and Common Accidents. They are called “the village aiders” and their duty is to give first aid before the arrival of the district medical officer of health or any doctor.

(b) The teachers in the village schools are also taught First Aid in Sanitation and Common Accidents and directed to teach, in their turn, the boys of their respective classes and get the instructions copied in their copy books.

II.—Child welfare.

The village *dais* of the selected circles are given the following instructions to adopt when called to a case :—

- (a) They should wear clean clothing.
- (b) Put their knife (*hansir*) and thread by which they cut and tie the cord into a vessel of boiling water.
- (c) Wash their hands in warm potassium permanganate water before attending on the case.
- (d) Apply sterilized ashes on the cut cord.

The district medical officer will supply them with a phial of potassium permanganate and another of sterilized ashes. The mukhia, patwari, chaukidar and the village aiders should get the *dais* practice the above clean methods.

III.—Village cleaning.

(a) The manure heaps should be deposited in pits from 50 to 100 feet outside the *abadi*. In districts where the district officer has passed a general order on the subject and the tahsildars given help in

(if)

summoning and warning the defaulters, there has been a great improvement. No prosecutions are required, the punishment of a journey to the tahsil has proved sufficient in most cases.

(b) Make soakage pits for waste water in dry weather.

(c) Perform calls of nature three bighas away from the *abadi*.

(d) Round the manure pits, plant *babul* trees which will serve for fuel in the future and save the cowdung for manure.

IV.—Water supply.

In each village of the selected circle, two of the most used wells should be taken, i.e., one used by the general population and the other by the lower classes. On these wells parapet walls and pulleys should be fixed. The cost should be met from the savings of the labour gangs. Parapet walls are most essential for the protection of a well.

V.—First aid dispensary.

In the selected circle a dispensary should be established and the medicines given at cost price.

Either a teacher or any other suitable person should be put in charge and given an allowance of Rs. 5 per mensem from the savings of labour gangs. The person in charge should also be taught First Aid in Sanitation and Common Accidents. A list of stock medicines with prescriptions is given. This should be prepared by the district medical officer of health and kept in dispensary with doses and cost of each dose marked on the tin.

VI.—Food census.

In the selected circle a food census of one village should be taken for a week. The enclosed form should be filled in and submitted to the Hygiene Publicity Bureau.

VII.—Verification.

In the selected circle verification of births, deaths and vaccination should be carefully done.

APPENDIX. D.

(Paragraph 49.)

Meerut District Rural Development Association.

1. That the scheme be modelled on the gospel of Mr. F. L. Brayne, but modified to suit the conditions of this district.

2. That the aims of the society be two-fold—

(a) to create a better standard of living among the cultivators ;
and

(b) to encourage zamindars to develop and improve their land.

3. That the scheme be confined at the outset to not more than eleven villages. One or two to be selected from every tahsil.

4. That the Association's aim shall be to co-ordinate the work of the following Government departments:—

Co-operative ;

Public Health ;

Education ;

Agriculture ; and

Irrigation.

5. With this end in view the movement shall be directed by an executive body known as the Rural Community Council, in which shall be included (i) the district magistrate, (ii) the heads of the above five departments in the district, (iii) all the six tahsildars—(sub-divisional officers may be substituted), (iv) 12 elected members of which six at least shall be members of the district board. Six will form a quorum, of which three must be elected. The chairman will be the collector. There will be two vice-chairmen who will be elected members.

6. That the life-membership will be Rs. 50 payable now, and that the ordinary membership will be rupees three per annum.

7. That the Council be authorized in *particular cases*, i.e., of students who wish to become voluntary workers, of poorer villagers in villages *where this work is being taken up*, to accept an annual subscription of rupee one.

8. That in no circumstances will the provision of rule 7 become general: each particular case will require sanction..

9. That the funds of the society are made up as follows:—

Membership fees (partly substantive, partly recurring Government grants);

Grants from district board for special purposes ;

Grants from Government departments ;

Donations ;

Interest on deposit account ; and

Proceeds of sale of literature, Agricultural Shows, etc.

10. That the practical work for the time being shall be done by three specially selected village guides together with the four district board schoolmasters recently returned from the Rural Training School, Benares.

11. Each village guide will be in charge of two villages. The Schoolmasters will each be in charge of one village.

12. Individual zamindars will be encouraged to initiate the movement in selected villages of their own. They will have the advice and assistance of the Association, though pecuniary assistance must for obvious reasons be confined to our own villages.

13. The Court of Wards of district Meerut will begin the work in one of their villages. They will have the assistance of this Association, but will be financially independent of it.

14. The aim of the Association is that by taking these ten scattered villages as model villages the movement may be popularized throughout the district.

It is only by the demonstration of improved methods that such methods can be effectively and widely introduced, and it is our object to demonstrate beyond doubt the benefits of our teaching.

15. An object which we have in mind is the starting of a rural economy school in Meerut, where workers in "Rural Development" will undergo a course of training.

16. That it will be our object to hold shows from time to time in conjunction with the Agricultural department, and in conjunction with the Public Health department.

17. That the office of the Association be for convenience sake situated in the Collectorate, Meerut.

18. That a copious supply of up-to-date literature on all subjects connected with rural development be kept there and the Rural Community Council meet there.

19. The Rural Community Council will meet about once a month or once in six weeks. The District Association will meet once a year.

20. A Secretary and Treasurer will be appointed and the accounts carefully kept.

21. That the Association will thus be a local association having no direct ostensible connexion with any department of Government, but demi-officialised in order that its work may be more promptly carried out.

APPENDIX E.

(Paragraph 101.)

Extract from a note on the Rural Community Board, Punjab, by KHAN BAHADUR SYED MAQBUL SHAH, B.A., I.E.S., Inspector of Vernacular Education, Punjab.

The Rural Community Board is a joint organization of the various beneficent departments in the Punjab for the uplift and enlightenment of the rural masses. It has its branches in all districts which are called "rural community councils" or briefly "district councils" and which are presided over by the Deputy Commissioners. These district councils have their branches in the various parts of the district and amongst their members they include not only the local officers of the various departments concerned but also other influential official and non-official gentlemen interested in the welfare of the rural community.

Every district council has been provided with a number of magic lanterns, and is also paid an annual grant of Rs. 500 for the purchase and preparation of slides and for other contingencies. Occasional non-recurring grants ranging from rupees one thousand to rupees two thousand have also been made to individual district councils as special grants. Some district councils have also been raising subscriptions on the occasion of fairs, horse-shows, cattle-shows, health weeks and other rural gatherings for carrying on their work more intensively and on a large scale on such occasions.

The aim and object of the Board is the advancement of the rural community throughout the province socially, physically, intellectually and economically, irrespective of caste or creed. To this end it endeavours to promote literacy among men and women, old and young and to show them the way to better living, better farming and better economies in general.

It receives an annual grant of rupees one lakh from Government out of the educational budget for carrying on its activities. The Education department has opened, through the District Boards, nearly 1,800 village libraries in connexion with vernacular upper and lower middle schools. In addition to the payment of allowances, the Board purchases and distributes free to these libraries, in consultation with the departments concerned, the best and most up-to-date literature available on agriculture, co-operation, village sanitation and hygiene, village crafts, forests, canals, etc., and natural history books and pamphlets on animals, birds, fishes, etc., such as are considered most suitable for village people. About the middle of this year

nearly one hundred maunds of books, pamphlets, etc., were distributed to the various districts. The Rural Community Board has also purchased a cinema lorry for Rs. 12,000 and also prepared or purchased a number of useful films. The cinema lorry is in the charge of the Director, Information Bureau, Punjab, who receives a grant of rupees six thousand a year for its upkeep and running expenses and for the purchase and preparation of useful films.....

The village libraries are also a most useful institution for the uplift and enlightenment of the masses in our villages, but their usefulness has not yet begun to be appreciated as well as it should be.

ADULT EDUCATION.—The activities of the Rural Community Board through the agency of the district councils and the local officers of the various departments will, however, not bear much fruit unless and until there is, side by side, a rapid and real advance in adult education. The importance of a rapid expansion of literacy in the adult population cannot be too strongly emphasized. The civilised countries of the West and in Japan there is hardly any man or woman who cannot read and write, while in India 90 per cent. males and 98 per cent. females can neither read nor write.

So much for the removal of illiteracy and the intellectual advancement of the country-side. I shall now show what has been or is being done in other directions. The local officers of the various departments concerned and other members of the district councils and their branches are expected to give talks and lectures, with or without lantern shows, in the villages as they go about on tour and to discuss with the people and encourage measures for their physical, social and economic advancement. This is done in particular on the occasion of fairs, cattle-shows, horse shows, health weeks and other rural gatherings. On such occasions, the various departments work together and by means of lectures, lantern shows, demonstrations, distribution of leaflets, processions of school boys singing uplift songs in the local dialect, plays and dramas, gramophone entertainments, singing parties, cinema-shows, if possible, competitions in village games and sports, and similar other things, a vigorous propaganda is carried on providing both instruction and amusement.

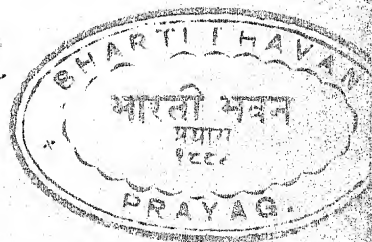
In some districts a lot of useful work has been done chiefly by the educational staff, by precept and example, in persuading village people to adopt preventive measures against epidemics, such as cholera, plague, malaria, small-pox, rinderpest, etc.

APPENDIX F.

EXTRACT FROM PARAGRAPH 438 OF THE REPORT OF THE INDIAN
STATUTORY COMMISSION, VOLUME I.*Literacy among the People.*

438. We realise that education is not an indispensable requisite for an intelligent exercise of the vote. We have had evidence, which we see no reason to doubt, of the shrewdness which so often resides in the illiterate peasantry of the rural areas. Many a ryot, unable to read or write, is capable of knowing clearly, within the narrow range of his experience, what he wants and of making as intelligent a selection of a representative as some of his literate fellow-villagers. But we need hardly labour to establish the proposition that education does help in the formation of an electorate which will be potentially more capable of understanding issues submitted to its judgement and hence *prima facie* better equipped to exercise political power. We are justified, therefore, in regarding the extent of popular education as a not untrustworthy general guide to a people's fitness for the exercise of political privileges, and the prevalence of literacy is the commonest and the most easily ascertainable index to the stage reached in mass education. True, literacy alone affords no guarantee of the attainment of real political capacity, but the ability to read at least increases the probability that statements and discussions of political issues and political programmes will reach the elector.

Registered no. A388.



SUPPLEMENT
TO THE

Government Gazette.

THE UNITED PROVINCES OF AGRA AND OUDH.

ALLAHABAD: SATURDAY, MARCH 14, 1931.

PART IV.

Curriculum for the Middle Section of Anglo-Vernacular Boys' and Girls' Schools, United Provinces, for 1931-32.

PREFATORY MEMORANDUM.

Head Masters, Head Mistresses and Managers of Secondary English Schools are permitted, in conformity with the general principles that underline the curriculum, to make modifications in the distribution according to classes of the work in any subject. Permission is also given to re-group scholars in classes above the primary stage for the various subjects, independently of the recognized classification.

Subjects, other than English, are to be taught in the student's own language, but English technical terms and figures may be used.

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Curriculum for the Middle Section of Anglo-Vernacular Boys' and Girls' School, for the session beginning in July 1931.

SUBJECTS OF STUDY FOR BOYS.

LOWER MIDDLE SECTION.

Classes V and VI.

Two years' course.

1. English.
2. Hindi or Urdu.
3. Arithmetic.
4. History (stories) and Geography.
5. Drawing and Handwork.
6. Physical Training and Hygiene.
7. Elementary Science including Nature Study (where there are facilities).
8. Music (where there are facilities).

UPPER MIDDLE SECTION.

Classes VII and VIII.

Two years' course.

1. English.
2. Hindi or Urdu.
3. Mathematics (Arithmetic, Algebra and Geometry).
4. History.
5. Geography.
6. One of the following subjects :—
 - (i) Drawing and Handwork.
 - (ii) A Classical Language (Sanskrit, Arabic or Persian).
7. Physical Training and Hygiene.
8. Elementary Science including Nature Study (where there are facilities).
9. Music (where there are facilities).

NOTE.—The teaching of the second form of Urdu and Hindi to the Middle Classes should be continued as hitherto, the details being left to the discretion of heads of institutions.

SUBJECTS OF STUDY FOR GIRLS.

LOWER MIDDLE SECTION.

Classes V and VI.

Two years' course.

1. English.
2. Hindi or Urdu.
3. Arithmetic.
4. History (stories) and Geography.
5. Domestic Science (Simple Physiology, Hygiene and *Sewing).
6. (a) Callisthenics.
(b) Music (where there are facilities).
7. One of the following subjects (where facilities are provided) :—
 - (i) Drawing with or without Brushwork.
 - (ii) A Second Vernacular (Hindi or Urdu).
 - (iii) Nature Study (mainly gardening).

UPPER MIDDLE SECTION.

Classes VII and VIII.

Two years' course.

1. English.
2. Hindi or Urdu.
3. Mathematics (Arithmetic, Algebra and Geometry).
4. History and Geography.
5. Domestic Science (Simple Physiology, Hygiene and *Sewing).
6. (a) Callisthenics.
(b) Music (where there are facilities).
7. One of the following subjects :—
 - (i) A Classical Language (Sanskrit, Arabic or Persian).
 - (ii) Drawing with or without Brushwork.
 - (iii) Elementary Science including Nature Study.

*Note.—Cooking and Spinning are additional subjects which should be encouraged, but they are not compulsory.

SYLLABUS OF THE COURSES IN ENGLISH.

LOWER MIDDLE SECTION.

Class V.

(Same for boys and girls.)

Conversation, reading and recitation.—To carry on simple conversation in English; to read with correct pronunciation from a reader; to use the words of the reader in simple sentences; to answer in English questions based on the matter in the reader; to recite simple poems with action.

Dictation and writing.—Dictation, in ruled books, of words and sentences previously read in the reader; writing in copy-books; transcription from the reader.

Grammar and composition.—Parts of speech without sub-classification, number and gender of nouns and pronouns; the use of the three simple tenses. Oral and written exercises on the above.

Written composition.—E.g., using the words and phrases of the reader in simple sentences; description of pictures and objects.

Text-book prescribed:—

(1) The Revised Modern India Readers, Book II (Macmillan and Company, Limited), annas 6,

or

(2) Third Direct Method English Reader, by Llewelyn Tipping (Macmillan and Company, Limited), annas 10,

or

(3) New English Course for Indian Schools, second year reading book (Longmans, Green and Company),

or

(4) Indian Class Reader, II, by P. G. Wren (K. and J. Cooper, Bombay),

or

(5) Nelson's Indian Reader, Book II (Thomas Nelson and Sons), cloth-binding annas 13, paper-binding annas 9 pies 6.

Recommended for supplementary reading:—

(1) The "A.L." Bright Story Readers, Grade P (E. J. Arnold and Son, Limited),

or

(2) Young India Readers, Grade II, Padmini and the Forest King (Oxford University Press).

Class VI.

(Same for boys and girls, subject to the modification noted below.)

Conversation, reading and recitation.—To carry on simple conversation in English; to read with correct pronunciation from a reader; to use the words of the reader in simple sentences; to answer in English questions based on the matter in the reader; to recite from memory passages chosen from the reader.

Dictation and writing.—Dictation, in ruled books, of passages chosen chiefly from the reader; writing in copy-books or transcription from the reader.

Grammar and composition.—Revision of previous work in grammar; nouns in apposition; sub-classification of nouns, pronouns, adjectives and adverbs; cases of nouns and pronouns; direct and indirect objects; verbs, numbers and persons, transitive and intransitive; participles; use of tenses; analysis of simple sentences. Oral and written exercises on the above.

Written composition.—E.g., the use of the words and phrases of the reader in simple sentences; reproduction of simple stories; practice in answering easy questions on the subject matter of the text: description of pictures and objects; punctuation.

(For girls the sub-classification of nouns, pronouns, adjectives and adverbs under "Grammar and composition" may be omitted.)

Text-book prescribed:—

(1) The Revised Modern India Readers, Book III (Macmillan and Company, Limited), annas 8.

or

(2) Fourth Direct Method English Reader, by Llewelyn Tipping (Macmillan and Company, Limited), annas 14.

or

(3) New English Course for Indian Schools, third year reading book (Longmans, Green and Company),

or

(4) Indian Class Reader, III, by P. C. Wren (K. and J. Cooper, Bombay),

or

(5) Nelson's Indian Reader, Book III (Thomas Nelson and Sons), Cloth-binding annas 14, paper-binding annas 10 pies 6.

Recommended for supplementary reading:—

(1) The "A. L." Bright Story Readers, Grade I (E. J. Arnold and Son, Limited),

or

(2) Young India Readers, Grades I and II (Oxford University Press),

or

(3) The New Method Readers (new series), Supplementary Reader I, by Michael West (Longmans Green and Company),

or

(4) Fables from Aesop, by Dorothy King (Blackie and Son).

UPPER MIDDLE SECTION.

Classes VII and VIII.

(Same for boys and girls.)

Conversation, reading and recitation.—To carry on conversation in English; to read with correct pronunciation and expression; to form sentences and to answer questions in English, using the vocabulary of the text; to recite from memory suitable passages of English poetry and prose.

Supplementary reading.—At least one easy book a session.

Dictation and writing.—Dictation of unseen passages of the standard indicated by the prescribed text; transcription.

Grammar and composition.—Revision of previous work; verbs, active and passive voices; moods; gerunds and verbal nouns; auxiliary verbs; complements of verbs; formal parsing; clause analysis of complex and compound sentences; elementary forms of direct and indirect speech. Oral and written exercises on the above.

Written composition.—Simple free composition, e.g., letter-writing, story-writing and description; translation from English into Modern Indian Languages, and *vice versa*.

Class VII.

Text-book prescribed:—

(1) The Revised Modern India Readers, Book IV (Macmillan and Company, Limited), annas 10,

or

(2) New English Course for Indian Schools, fourth year reading book (Longmans, Green and Company),

or

(3) Indian Class Reader, IV, by P. C. Wren (K. and J. Cooper, Bombay).

Recommended for supplementary reading:—

(1) Simple School Unseens, by Rai Bahadur A. C. Mukerji (Macmillan and Company), annas 6,

or

(2) The "A. L." Bright Story Readers, Grade II (E. J. Arnold and Son, Limited),

or

(3) Young India Readers, Grade III (Oxford University Press),

or

(4) The New Method Readers (new series) Robinson Crusoe by Daniel Defoe, Supplementary Reader III, edited by Michael West (Longmans, Green and Company),

or

(5) Tales of India, Junior 7, Mitragupta, Prince of Magadha (Macmillan & Co.).

or

(6) Indian Story Readers, grade P, No. 1 (Short Stories for Small Folk), (Macmillan & Co.),

or

(7) Across India, by Clayton (Christian Literature Society for India, Allahabad).

Class VIII.

Text-book prescribed:—

(1) The Revised Modern India Readers, Book V (Macmillan and Company, Limited), annas 12.

or

(2) New English Course for Indian Schools, fifth year reading book (Longmans, Green and Company).

Recommended for supplementary reading:—

(1) Simple School Unseens, by Rai Bahadur A. C. Mukerji (Macmillan and Company), annas 6,

or

(2) The "A. L." Bright Story Readers, Grade III (E. J. Arnold and Son, Limited),

or

(3) Young Indian Readers, Grades IV and V (Oxford University Press),

or

(4) Tales of India, Senior 9, Tales of the Heroines of India (Macmillan & Co.).

or

(5) Indian Story Readers, Grade I, No. 1 (Hospitality Repaid and Other Stories), (Macmillan & Co.).

or
(6) Robinson Crusoe (Blackie and Son, Limited),

or
(7) Epic Tales of the East (Oxford University Press),

or
(8) Stories of Indian Youth, Part I (Longmans, Green and Co.).
Grammar and composition for classes V to VIII.

Recommended for use in the middle section:—

(1) The Middle School English Grammar, Parts I and II, by L. Fipping (Macmillan and Company, Limited).

(2) Inductive Grammar, Book II for class V, Book III for class VI and Book IV for classes VII and VIII, by Ganga Prasad (Rai Sahib Ram Dayal Agarwala, Allahabad).

(3) A Survey of English Grammar, by Winbolt (Blackie and Son, Limited).

(4) Pitman's Lessons in Composition, Parts I, IA and II (J. Eaton Feasey, Sir Isaac Pitman and Sons, Limited).

(5) Elementary English Grammar on Modern Lines, by P. C. Wren (K. and J. Cooper, Bombay).

(6) Progressive Composition, by P. C. Wren (K. & J. Cooper, Bombay).

The following English copy-books to be used for writing in the middle section are recommended:—

(1) Series 3, 4, 5 and 6, Blackie and Sons (Vere Foster's), anna one and pies six per copy.

(2) Upright and semi-upright, by Longmans, Green and Company.

(3) Oxford Copy Books, Nos. 1—12 (Oxford University Press).

The Little Oxford Dictionary (Oxford University Press) is recommended for use in classes VII and VIII.

SYLLABUS OF THE COURSES IN HINDI AND URDU.

(Same for boys and girls for classes V to VIII.)

I.—Reading—which includes silent reading, reading aloud and recitation.

II.—Composition—oral and written.

III.—Dictation and writing.

IV.—Grammar.

LOWER MIDDLE SECTION.

Class V.

I.—Reading—

The reader for class V should contain about 150 pages, of which about 100 pages should be devoted to prose selection and about 50 pages to poetry.

It should contain the following subjects :—

Prose.

- (1) Stories, fairy tales and legends. Stories should be of imagination, romance and adventure.
- (2) Biographical and historical pieces about kings, heroes and saints.
- (3) Stories of invention and discovery, e.g., the steam engine, gramophone, America, etc.
- (4) Simple dramatic pieces, including dialogues.
- (5) Descriptive scenes of cities, natural phenomena, battles, etc.

Poetry.

- (1) Imaginative—lyric and ballad.
- (2) Descriptive—natural scenes and phenomena, buildings, etc.
- (3) Narrative, e.g., Ramayana, Mahabharata, Marsias,
- (4) Patriotic.
- (5) Allegorical, e.g. Banjara of Nazir.
- (6) Didactic.

Memory work—About 100 lines of poetry should be committed to memory by every student.

Supplementary reading—About 200 pages of supplementary reading should be done.

II.—Composition—

Oral—story-telling, debate, dialogue, drama.

Written—(a) Description of observed events, places, phenomena, etc.

(b) Letter-writing.

(c) Completion of stories, re-telling of stories, elaboration of outlines.

III.—Writing and dictation—

Writing should include copying from model copy-books as well as from ordinary readers.

Dictation should be used as an aid to concentration and to draw the attention of boys towards (1) words having the same sound but different spelling, (2) words having the same spelling but different meaning, and (3) etymology of words.

IV.—Grammar—

Analysis of a simple sentence into subject and predicate; kinds of sentences, i.e., statement, question, command.

Parts of speech.

Nouns—Number, gender.

Pronouns—Number, gender.

Verbs—Kinds.

Text-book prescribed in Hindi:—

(1) Sahitya-Latika, Part I, by Dr. Ram Prasad Tripathi (School Book and Apparatus Dépôt, Lucknow), annas 6,

or

(2) Sahitya-Suman, Part I (Indian Press, Limited, Allahabad), annas 8,

or

(3) Hindi Sahitya-Sangrah, Part I, by Pandit Ganga Datta Pande (Ram Prasad and Brothers Agra), annas 8,

or

(4) Sahitya Sudha, Part I (Agarwal Press, Allahabad), annas 8,

or

(5) Nootan Hindi Pathawali, Part I (City Book House, Cawnpore), annas 8.

Recommended for supplementary reading in Hindi:—

(1) Kathinai men Vidyabhiyas (Hindi Granth Ratnakar Karyalaya, Bombay).

(2) Sheikh Chilli-ki-kahani (Indian Press, Limited, Allahabad).

(3) Sati (Indian Press, Limited, Allahabad).

(4) Savitri (Indian Press, Limited, Allahabad).

(5) Damayanti (Indian Press, Limited, Allahabad).

(6) Sahase Bachche, by Pandits Sri Ram Bajpai and Murari Lal Sharma (Lala Ram Narain Lal, Allahabad).

(7) Arya Lalana, by Pandit Mannan Dwivedi Gajpuri (Lala Ram Narain Lal, Allahabad).

(8) Viron ki Sachchi Kahaniyan (Chhatra Hitkari Pustakmala, Daraganj, Allahabad).

(9) Pushpanjali (Rai Sahib Ram Dayal Agarwala, Allahabad).

Text-book prescribed in Urdu:—

(1) Gulistan-i-Adab, Part I (Agra Publishing House), 1928, annas 8,

or

(2) Ruh-i-Adab, Part I (Vidya Printing Press, Meerut), annas 8,

or

(3) Bostan-i-Adab, Part I (Ram Prasad and Brothers, Agra),

or

(4) Shahrah-i-Adab, Part I (Taluqdar Press, Lucknow), annas 8,

or

(5) Jauhar-i-Urdu (University Publishing House, Agra), annas 5.

Recommended for supplementary reading in Urdu:—

- (1) Tuhfa-i-Japan (Indian Press, Limited, Allahabad).
- (2) Tuhfa-i-Misir, by Maulana Asghar Husain (Indian Press, Limited, Allahabad).
- (3) Dastan-i-Ajam, by Maulvi Hamid Ali (Indian Press, Limited, Allahabad).
- (4) Muntakhibul Hikayat, by Dr. Nazir Ahmad (Muslim University Press, Aligarh).
- (5) Amrit Kahaniyan, by K. R. Raliya Ram (Rai Sahib M. Gulab Singh and Sons, Lahore).
- (6) Kimti Afsane (Gaya Prasad and Sons, Agra).

Class VI.

I.—Reading—150 pages of which 100 are prose and 50 poetry. The subjects in prose and poetry will be of the same nature as in class V, but the selected pieces will be more difficult in language and idea than those for class V.

Supplementary reading—200 pages.

Memory work—100 lines.

II.—Composition—Same as in class V.

III.—Writing and dictation—Same as in class V.

IV.—Grammar—

Verb—Person, number, tense, mood, voice.

Remaining parts of speech.

Order of words.

Text-book prescribed in Hindi:—

(1) Sahitya-Latika, Part II, by Dr. Ram Prasad Tripathi (School Book and Apparatus Dépôt, Lucknow), annas 8,

or

(2) Sahitya-Suman, Part II (Indian Press, Limited, Allahabad), annas 8,

or

(3) Hindi Sahitya-Sangrah, Part II, by Pandit Ganga Datta Pande (Ram Prasad and Brothers, Agra), annas 8,

or

(4) Sahitya Sudha, Part II (Agarwal Press, Allahabad), annas 8.

or

(5) Nootan Hindi Pathawali, Part II (City Book House, Cawnpore), annas 8.

Recommended for supplementary reading in Hindi:—

(1) Chamatkari Balak, by Devi Prasad (Indian Press, Limited, Allahabad).

(2) Viron ki Kahaniyan (Hindi Granth Ratnakar Karyalaya, Bombay).

(3) Abraham Lincoln (Abhyudaya Press, Allahabad).

(4) Arya Lalana, by Pandit Mannan Dwivedi Gajpuri (Lala Ram Narain Lal, Allahabad).

(5) Bahraghuvansha (Indian Press, Limited, Allahabad).

(6) Samudra Par Vijay (Rai Sahib Ram Dayal Agarwala, Allahabad).

(7) Japan ka Hal (Indian Press, Limited, Allahabad).

Text-book prescribed in Urdu :—

(1) Gulistan-i-Adab, Part II (Agra Publishing House), 1928, annas 8,

or

(2) Ruh-i-Adab, Part II (Vidya Printing Press, Meerut), annas 8,

or

(3) Bostan-i-Adab, Part II (Ram Prasad and Brothers, Agra),

or

(4) Shahrah-i-Adab, Part II (Taluqdar Press, Lucknow), annas 8,

or

(5) Akhtar-i-Urdu (University Publishing House, Agra), annas 8.

Recommended for supplementary reading in Urdu :—

(1) Tuhfa-i-Japan (Indian Press, Limited, Allahabad).

(2) Tuhfa-i-Misir, by Maulana Asghar Husain (Indian Press, Limited, Allahabad).

(3) Dastan-i-Ajam, by Maulvi Hamid Ali (Indian Press, Limited, Allahabad).

(4) Muntakhibul Hikayat, by Dr. Nazir Ahmad (Muslim University Institute Press, Aligarh).

(5) Amrit Kahaniyan, by K. R. Raliya Ram (Rai Sahib M. Gulab Singh and Sons, Lahore).

(6) Sehat-ki-Jinnat (Gaya Prasad and Sons, Agra).

UPPER MIDDLE SECTION.

Class VII.

I.—Reading—

The reader should consist of 125 pages of prose and 75 pages of poetry.

The following subjects should be added to the list for classes V and VI :—

(1) Reflective pieces.

(2) Moral pieces.

(3) Scientific stories.

Students should memorise 125 lines.

Supplementary reading should cover about 250 pages.

II.—Composition—

Oral and written on lines similar to those recommended for classes V and VI.

III.—Dictation—

More difficult exercises.

IV.—Grammar—

Syntax—Government and order.

Analysis of complex sentences.

Different forms of narration.

Simple figures of speech.

Text-book prescribed in Hindi:—(1) *Sahitya-Latika*, Part III, by Dr. Ram Prasad Tripathi (School Book and Apparatus Dépôt, Lucknow), annas 8,

or

(2) *Hindi-Kusumavali*, Part I (Indian Press, Limited, Allahabad), annas 10,

or

(3) *Sahitya-Saroj*, by Chaturvedi Dwarka Prasad Sharma (Lala Ram Narain Lal, Allahabad), annas 10,

or

(4) *Sahitya Sudha*, Part III (Agarwal Press, Allahabad), annas 10,

or

(5) *Nootan Hindi Pathawali*, Part III (City Book House, Cawnpore), annas 10.**Recommended for supplementary reading in Hindi:—**

(1) Mahadeo Govind Ranade, by Pandit Ram Narain Misra (Nagri Pracharini Sabha, Benares).

(2) *Robinson Crusoe* (Indian Press, Limited, Allahabad).**Text-book prescribed in Urdu:—**(1) *Gulistan-i-Adab*, Part III (Agra Publishing House), 1928, annas 10,

or

(2) *Ruh-i-Adab*, Part III (Vidya Printing Press, Meerut), annas 10,

or

(3) *Bostan-i-Adab*, Part III (Ram Prasad and Brothers, Agra),

or

(4) *Shahrah-i-Adab*, Part III (Talugdar Press, Lucknow), annas 10.**Recommended for supplementary reading in Urdu:—**(1) *Qasas-i-Hind* (قصص ہند) (Rai Sahib M. Gulab Singh and Sons, Lahore).(2) *Raj Dulari* (راج دلاڑی), by Brij Mohan Dattatriya Kaife (Pandit Pairay Mohan, Bansmandi, Anarkali, Lahore).(3) *Dastan-i-Ajam*, Part II, by Maulvi Hamid Ali, (Indian Press, Limited, Allahabad).

Class VIII.

I.—Reading—200 pages containing prose and poetry on subjects similar to those of the reader in class VII, but pieces of greater difficulty will be selected.

Supplementary reading—250 pages.

Memory work—125 lines.

II.—Composition—Same as for class VII.

III.—Dictation—Same as for class VII.

IV.—Grammar—Same as for class VII.

Prosody—Analysis of simple rhythms.

Text-book prescribed in Hindi:—

(1) Sahitya-Latika, Part IV, by Dr. Ram Prasad Tripathi (School Book and Apparatus Dépôt, Lucknow), annas 8,

or

(2) Hindi-Kusumavali, Part II (Indian Press, Limited, Allahabad), annas 10,

or

(3) Hindi-Ratna-Sangrah, by Sudarshan Acharya (Griha Lakshmi Karyalaya, Allahabad), annas 10,

or

(4) Sahitya Sudha, Part IV (Agarwal Press, Allahabad), annas 10,

or

(5) Nootan Hindi Pathawali, Part IV (City Book House, Cawnpore), annas 10.

Recommended for supplementary reading in Hindi:—

(1) Galpa Guchha, Part I (Indian Press, Limited, Allahabad), annas 12.

(2) Singh Garh Vijai (Abhyudaya Press, Allahabad).

(3) Robinson Crusoe (Indian Press, Limited, Allahabad).

(4) Bal Rabindranath (Indian Press, Limited, Allahabad).

(5) Bipta (Hindustan Press, Allahabad).

(6) Pratapi Pratap (Gautam Brothers, Cawnpore).

Text-book prescribed in Urdu:—

(1) Gulistan-i-Adab, Part IV (Agra Publishing House), 1928, annas 10,

or

(2) Ruh-i-Adab, Part IV (Vidya Printing Press, Meerut), annas 10,

or

(3) Bostan-i-Adab, Part IV (Ram Prasad and Brothers, Agra),

or

(4) Shahrah-i-Adab, Part IV (Taluqdar Press, Lucknow), annas 10.

Recommended for supplementary reading in Urdu:—

(1) Nasihat-ka-karanphool (نصیحت کا کن پھول), by Maulana Azad (Khalifa Syed Mohammad Salim, Manager, Azad Book Dépôt, Akbari-mandi, Lahore).

(2) Sudarshan (سدرشن) (Newal Kishore Press, Lucknow).

Grammar recommended in Hindi:—**Classes V to VIII.**

(1) Bhasha Vyakaran Bodh, by Pandit Chandra Mauli Shukul (Nand Kishore and Brothers, Benares).

(2) Hindi Vyakaran, Parts I and II, by Ganga Prasad (Rai Sahib Ram Dayal Agarwala, Allahabad).

(3) Madhya Hindi Vyakaran, by Pandit Kamta Prasad Guru (Kashi Nagri Pracharini Sabha, Benares).

Classes VII and VIII.

Recommended for use as a guide for teachers in teaching Hindi composition:—

(1) Hindi Composition for Vernacular and Anglo-Vernacular Schools, by Ganga Prasad (Rai Sahib Ram Dayal Agarwala, Allahabad).

(2) Rachna Piyush, by Pandit Chandra Mauli Shukul (Indian Press, Limited, Allahabad).

(3) Navin Patra Aur Nibandh Lekhan (School Book and Apparatus Dépôt, Lucknow).

Grammar recommended in Urdu:—**Classes V to VIII.**

(1) Mubadi-ul-Qawaid (مبادئ القواعد), by Maulvi Fateh Muhammad Khan (Messrs. Attar Chand Kapur and Sons, Lahore).

(2) Afzal-ul-Qawaid (افضل القواعد), by Maulvi Fateh Muhammad Khan (Messrs. Attar Chand Kapur and Sons, Lahore).

(3) Tahzib-ul-Qawaid, Part II (Indian Press, Limited, Allahabad).

(4) Mukhtasar Qawaid, Part II (Rai Sahib Ram Dayal Agarwala, Allahabad), annas 8.

NOTE.—Schools will be separately notified what books are approved for recitation in Classes V to VIII.

SYLLABUS OF THE COURSES IN MATHEMATICS.**Arithmetic.****LOWER MIDDLE SECTION.**

(Same for boys and girls.)

Class V.

Revision of work in lower classes; more difficult examples in vulgar fraction; vulgar fractions of concrete quantities; simple calculations in the four simple rules with decimal fractions (excluding recurring decimals); conversion of vulgar fraction into decimal fractions to a given number of places, and *vice versa* (excluding recurring decimals); oral and written problems on the above with attention to approximations.

Class VI.

Revision; simple percentages; more difficult examples with vulgar and decimal fractions (excluding recurring decimals); decimal fractions of concrete quantities; ratio and simple proportion; the unitary

method; simple interest; easy square and cube root by factors; oral and written problems on the above with attention to approximations.

Notes. I.—In classes V and VI weights and measures in common use should be taught.

II.—For girls this is the full course for those who intend to continue their studies in the Upper Middle Section.

Examples suitable for the illustration of principles may be selected from the following books recommended:—

Classes V and VI.

(1) Anglo-Vernacular School Arithmetic for classes V and VI with answers at the end of the book (Urdu or Hindi), (Lala Ram Narain Lal, Allahabad), (Urdu, annas 10 and pies 3; Hindi, annas 10),

(2) Modern Arithmetic, Book II (Urdu or Hindi), (Indian Press, Limited, Allahabad), annas 6 (revised edition).

or
(3) United Provinces Vernacular Arithmetic, Parts II and III (Blackie and Son, Limited),

or
(4) Longmans' Urdu Middle Arithmetic, Part III.

or
(5) Longmans' Vernacular School Arithmetic, Hindi, Part III.

UPPER MIDDLE SECTION.

Classes VII and VIII.

(Same for boys and girls.)

Units of length in British and metric systems; calculations; measurement of straight lines; measurement of curved lines; rules for the length of the circumference of a circle; units of areas in British and metric systems; rules for area of a rectangle, use of squared paper to find the area of figures other than rectangles; formula for the area of a triangle; units of volume in British and metric systems; rules for the volume of a rectangular solid; units of weight in British and metric systems; compound proportion; proportional parts; percentages; profit and loss; oral and written problems on the above with attention to approximation.

Examples suitable for the illustration of principles may be selected from the following books recommended:—

(1) A new Arithmetic for Indian Schools, by Workman and Sime (Bai Sahib Gulab Singh and Sons, Lahore),

(2) Senior Modern Arithmetic (Indian Press, Limited, Allahabad), Re. 1-8,

or
(3) Longmans' Urdu Middle Arithmetic, Hindi, Part III.

or
(4) Longmans' Vernacular School Arithmetic, Hindi, Part III.

Grammar recommended in Hindi:—**Classes V to VIII.**

(1) Bhasha Vyakaran Bodh, by Pandit Chandra Mauli Shukul (Nand Kishore and Brothers, Benares).

(2) Hindi Vyakaran, Parts I and II, by Ganga Prasad (Rai Sahib Ram Dayal Agarwala, Allahabad).

(3) Madhya Hindi Vyakaran, by Pandit Kamta Prasad Guru (Kashi Nagri Pracharini Sabha, Benares).

Classes VII and VIII.

Recommended for use as a guide for teachers in teaching Hindi composition:—

(1) Hindi Composition for Vernacular and Anglo-Vernacular Schools, by Ganga Prasad (Rai Sahib Ram Dayal Agarwala, Allahabad).

(2) Rachna Piyush, by Pandit Chandra Mauli Shukul (Indian Press, Limited, Allahabad).

(3) Navin Patra Aur Nibandh Lekhan (School Book and Apparatus Dépôt, Lucknow).

Grammar recommended in Urdu:—**Classes V to VIII.**

(1) Mubadi-ul-Qawaid (مبادی القواعد), by Maulvi Fateh Muhammad Khan (Messrs. Attar Chand Kapur and Sons, Lahore).

(2) Afzal-ul-Qawaid (افضل القواعد), by Maulvi Fateh Muhammad Khan (Messrs. Attar Chand Kapur and Sons, Lahore).

(3) Tahzib-ul-Qawaid, Part II (Indian Press, Limited, Allahabad).

(4) Mukhtasar Qawaid, Part II (Rai Sahib Ram Dayal Agarwala, Allahabad), annas 8.

Note.—Schools will be separately notified what books are approved for recitation in Classes V to VIII.

SYLLABUS OF THE COURSES IN MATHEMATICS.**Arithmetic.****LOWER MIDDLE SECTION.**

(Same for boys and girls.)

Class V.

Revision of work in lower classes; more difficult examples in vulgar fraction; vulgar fractions of concrete quantities; simple calculations in the four simple rules with decimal fractions (excluding recurring decimals); conversion of vulgar fraction into decimal fractions to a given number of places, and *vice versa* (excluding recurring decimals); oral and written problems on the above with attention to approximations.

Class VI.

Revision; simple percentages; more difficult examples with vulgar and decimal fractions (excluding recurring decimals); decimal fractions of concrete quantities; ratio and simple proportion: the unitary

method; simple interest; easy square and cube root by factors; oral and written problems on the above with attention to approximations.

NOTES. I.—In classes V and VI weights and measures in common use should be taught.

II.—For girls this is the full course for those who intend to continue their studies in the Upper Middle Section.

Examples suitable for the illustration of principles may be selected from the following books recommended:—

Classes V and VI.

(1) Anglo-Vernacular School Arithmetic for classes V and VI with answers at the end of the book (Urdu or Hindi), (Lala Ram Narain Lai, Allahabad), (Urdu, annas 10 and pies 3; Hindi, annas 10),

or
(2) Modern Arithmetic, Book II (Urdu or Hindi), (Indian Press, Limited, Allahabad), annas 6 (revised edition).

or
(3) United Provinces Vernacular Arithmetic, Parts II and III (Blackie and Son, Limited),

or
(4) Longmans' Urdu Middle Arithmetic, Part III,

or
(5) Longmans' Vernacular School Arithmetic, Hindi, Part III.

UPPER MIDDLE SECTION.

Classes VII and VIII.

(Same for boys and girls.)

Units of length in British and metric systems; calculations; measurement of straight lines; measurement of curved lines; rules for the length of the circumference of a circle; units of areas in British and metric systems; rules for area of a rectangle, use of squared paper to find the area of figures other than rectangles; formula for the area of a triangle; units of volume in British and metric systems; rules for the volume of a rectangular solid; units of weight in British and metric systems; compound proportion; proportional parts; percentages; profit and loss; oral and written problems on the above with attention to approximation.

Examples suitable for the illustration of principles may be selected from the following books recommended:—

(1) A new Arithmetic for Indian Schools, by Workman and Sime (Rai Sahib Gulab Singh and Sons, Lahore),

(2) Senior Modern Arithmetic (Indian Press, Limited, Allahabad), Re. 1-8,

or
(3) Longmans' Urdu Middle Arithmetic, Hindi, Part III,

or
(4) Longmans' Vernacular School Arithmetic, Hindi, Part III.

pair of equal sides are right angles, the triangles are congruent. (Ambiguity to be discussed.)

- (10) Of all the straight lines that can be drawn to a given straight line from a given point outside it, the perpendicular is the shortest.
- (11) The opposite sides and angles of a parallelogram are equal; each diagonal bisects the parallelogram and the diagonals bisect one another.
- (12) The converse of the first, second and the fourth parts of the above (11).
- (13) Straight lines joining the extremities of parallel and equal straight lines on the same side are also parallel and equal.
- (14) The area of a parallelogram is equal to the area of a rectangle on the same base and between the same parallels.
 - Cor. 1.* The area of a parallelogram is measured by the product of the measure of its base and altitude.
 - Cor. 2.* Parallelograms on the same or equal bases and of the same altitude are equal in area.
- (15) The area of a triangle is equal to one-half the area of a rectangle on the same base and between the same parallels.
 - Cor. 1.* The area of a triangle is measured by one-half the product of the measures of its base and altitude.
 - Cor. 2.* Parallelograms on the same or equal bases and of the altitude are equal in area.
 - Cor. 3.* Converse of the above.
- (16) If a parallelogram and a triangle stand on the same base and between the same parallels, the area of the parallelogram is double that of the triangle.
- (17) The sum of the squares on the two sides of a right angled triangle containing the right angle is equal to the square on the hypotenuse; and its converse.

Books recommended :—

- (1) Parkinson and Pressland : A Primer of Geometry (Clarendon Press, Oxford), (Indian edition), Re. 1-12,
- or
- (2) Middle School Geometry for classes VII and VIII, by Shiva Nath Singh (Indian Press, Limited, Allahabad), Re. 1,
- or
- (3) Pierpoint's Elements of Geometry, Part I, Experimental Section, Urdu and Hindi editions (Indian Press, Limited, Allahabad),
- or
- (4) A Shorter School Geometry, Part I (new edition), by Hall and Stevens (Macmillan & Co.),
- or

(5) High School Geometry, Part I, by Paranjpe (Macmillan and Company),

or

(6) Analytic Geometry, by S. B. L. Kapur (Agarwal Press, Allahabad) in Hindi and Urdu.

SYLLABUS OF THE COURSES IN HISTORY.

LOWER MIDDLE SECTION.

Classes V and VI.

(Same for boys and girls.)

Stories relating to the following should be studied in classes V and VI. In class V some ten to fifteen outstanding stories should be selected from Indian History :—

1. The Ramayana.
2. The Mahabharat.
3. Chandragupta and Asoka.
4. Vikramaditya and Kali Das.
5. Harsha.
6. Mahmud of Ghazni.
7. Prithwiraj, Alha and Udal.
8. Ala-ud-din.
9. Babar.
10. Akbar, Rana Pratap, Man Singh, Birbal, Todar Mal. Faizi, Abul Fazl.
11. Nur Jahan.
12. Shahjahan, Taj Mahal.
13. Aurangzeb, Shivaji, Guru Govind Singh.
14. Ranjit Singh.
15. Raja Ram Mohan Rai.
16. Sir Syed Ahmad Khan.
17. Dadabhai Naoroji.
18. Victoria.
19. George V.

Books recommended :—

- (1) Qasas-i-Hind, Parts I and II, (Urdu edition only), (Rai Sahib Gulab Singh and Sons, Lahore),

or

- (2) Bharat ke Samut (Hindi)
Hind ke Jan Nisar (Urdu) revised edition), by Suraj Narayan Mathur (Rai Sahib Ram Dayal Agarwala, Allahabad.)

or

- (3) Hindi ke Chand Sarsai (Urdu)
Bhartiya Itihas ke Kuchh Ratna (Hindi) Parts I and II. (City Book House, Cawnpore).

UPPER MIDDLE SECTION.

Classes VII and VIII.

(Same for boys and girls.)

Outlines of Indian History.

1. Geographical features of India.
2. Aryans and Dravidians.
3. The Vedas and the old Aryan customs and manners. The Ramayan and the Mahabharat.
4. Jainism and Buddhism and their influence.
5. Alexander.
6. Chandragupta Maurya, description by Megasthenes.
7. Asoka.
8. Samudragupta, Vikramaditya, and Fa Hian.
9. Harsha Vardhan and Hieun Tsang.
10. Rajraj Chola.
11. The Rajput Kingdoms and early Muhammadan invasions.
12. Qutub-ud-din, Altamash, Razia and Balban.
13. Ala-ud-din Khilji.
14. The Bahmani Kingdom and Vijayanagar.
15. Muhammad and Firoz Tughlak, Timur.
16. Babar.
17. Humayun and Sher Shah.
18. Akbar.
19. Jehangir, Shahjahan.
20. Aurangzeb.
21. Aurangzeb's successors and fall of Moghal Empire.
22. Shivaji and rise of Mahratta power.
23. The Sikhs and Ranjit Singh.
24. East India Company; its early possessions.
25. Contests of the English and the French for the supremacy of India, Clive, Dupleix. Battles of Plassey and Wandewash.
26. Warren Hastings and Madho Rao Scindia.
27. Cornwallis and Tippu Sultan.
28. Wellesley.
29. Hastings.
30. Bentinck.
31. Dalhousie.
32. Canning.
33. India under the Crown.

Books recommended :—

- (1) History of India, Parts I and II, by Professor Ishwari Prasad M.A., LL.B. (Indian Press, Limited, Allahabad). (Urdu version, Re 1 : Hindi version, annas 14).

or

(2) Bharat Varshaka Itihas, by Pandey Ramavatar Sharma (Sahitya Ratnamala Karyalaya, Benares city),

or

(3) Shalopayogi Bharatvarsha शालोपायोगी भारतवर्ष (Gandhi Hindi Pushtak Vandhar or Sahitya Bhawan, Limited, Allahabad),

or

(4) Introductory History of India, Parts I and II (Hindi and Urdu, revised editions), by Kali Das Kapur (Newal Kishore Press, Lucknow).

SYLLABUS OF THE COURSES IN GEOGRAPHY.

LOWER MIDDLE SECTION.

(Same for boys and girls, subject to the modification noted below.)

Class V.

Revision of work done in class IV.

Use of the globe in explanation of the phenomena of day and night. Practical work in connexion with the variation of seasons; record of the length of days and nights in the different seasons; observation of the height of the sun with the help of a vertical rod.

Reading of the bathyromographical map of India; colouring, scale, direction, measurement of distances. Flow of the rivers, the coast line and the seas.

Natural divisions of India; Northern mountains (different ranges, sources of chief rivers, climate, zones of vegetation, life of the people as affected by the mountains); Indo-Gangetic plain (climate, river system, products, life of the people); the Deccan (river system, soil and minerals, life of the people); coastal plains (rainfall, products); Ceylon and Burma (description of land and rivers, climate and vegetation, life of the people).

The names and positions of the more important provinces and Indian States. Names and positions of the chief towns. Communications.

Local studies.—The post office. The market. How the country feeds the town.

These studies shall be carried out by means of excursions and simple projects.

Foreign studies.—A series of about ten lessons dealing with the life and occupations of some of the typical peoples of the world.

NOTE.—Pupils should be required to fill in sketch maps of India, showing (a) natural divisions, and (b) the most important town.

Books recommended:—

(1) *Anglo-Vernacular School Geography, Book I, Part II (Urdu or Hindi), (Longmans, Green and Company), (Urdu, annas 10; Hindi, annas 8),

or

(2) The Anglo-Vernacular Middle Geography, Part II (Indian Press, Limited, Allahabad), (revised edition, 1923), (Hindi and Urdu editions, annas 8 each),

or

* This Geography, Book I, Parts I—III is also available in one volume.
Urdu Rs. 2-4-0; Hindi Rs. 1-4-0.

(3) Bhugol Digdarshan (Hindi)
Aina-Jugraha (Urdu), Part II, by Kamta Prasad Nigam (Rai Sahib Ram Dayal Agarwala, Allahabad), price annas 8.

Vichitra Dunia (Hindi)
Anokai Dunia (Urdu), by Kamta Prasad Nigam (Rai Sahib Ram Dayal Agarwala, Allahabad, price annas 8. (For foreign studies).

Class VI.

Revision of previous work for the sake of contrast and comparison when dealing with new areas.

Reading of the bathyographical map of Asia; simple ideas of the zones; climates of Asia.

The natural regions of Asia, with special reference to their vegetation, products and the life occupations of the people inhabiting these regions; the Tundras; the Great Northern Forests, grass lands and steppes; the mid-Asiatic table-lands; the eastern borderland and islands; the south-eastern coast lands and islands; the south-western deserts; the western table-lands and coast lands. Earthquakes and volcanoes (when studying Japan and the Eastern Archipelago.)

Countries of Asia: their position and the most important towns.

Comparison of other countries of Asia with India.

Trade routes.

Local studies.—The seasonal crops; a calendar of seed-time and harvest, local transport; local industries.

Practical work should be continued on the same lines as in class V, but in more detail.

Note.—Pupils should be required to fill in sketch maps.

Books recommended:—

(1) *Anglo-Vernacular School Geography, Book I, Part III (Longmans, Green and Company), (Urdu, annas 12; Hindi, annas 8).

OR

(2) The Anglo-Vernacular Middle Geography, Part III (Indian Press Limited, Allahabad), (revised edition, 1928) (Hindi and Urdu editions, annas 9 each),

OR

(3) Bhugol Digdarshan (Hindi)
Aina-Jugraha (Urdu), Part III, by Kamta Prasad Nigam (Rai Sahib Ram Dayal Agarwala, Allahabad), price annas 8.

UPPER MIDDLE SECTION.

Classes VII and VIII.

(Same for boys and girls.)

(a) *Physical Geography.*—Revision of previous work.

Latitude and longitude. Practical work in the record and measurement of temperature and rainfall; terrestrial and seasonal winds and the record of their changes; the seasons; the oceans; ocean currents and waves, tides; simple land forms; the wearing away and the building up of lands.

*This Geography, Book I, Parts I—III, is also available in one volume.
Urdu, Rs. 2-4-0; Hindi, Rs. 1-4-0.

(b) *General Geography*.—Revision of previous work with special reference to India. Study of the natural regions of other continents on the same lines as indicated for the study of Asia in class VI. Outline study of physiographic and distribution maps. Trade routes to and from India.

NOTE.—Pupils should be required to fill in sketch maps.

Books recommended :—

*Anglo-Vernacular School Geography, Book II (Urdu or Hindi), (Longmans, Green and Company), (Urdu, Rs. 3; Hindi, Rs. 2-4-0), for classes VII and VIII,

OR

The Anglo-Vernacular Middle Geography, Part IV (Indian Press, Limited, Allahabad), (revised edition, 1928), for class VII,

The Anglo-Vernacular Middle Geography, Part V (Indian Press, Limited, Allahabad), (revised edition, 1928), for class VIII,

OR

Bhugol Digdarshan (Hindi), Part IV for class VII and Part V for class VIII, by Kamta Prasad Nigam (Rai Sahib Ram Dayal Agarwala, Allahabad), price annas 8 each part.

The following atlases are adopted for use in classes V to VIII :—

- (1) *भूचित्रावली* Published by the Arts Publishers, 8, Park Road, Allahabad. Hindi and Urdu editions, Re. 1 each.
- (2) Longmans Indian Atlas (Hindi edition).

SYLLABUS OF THE COURSES IN DRAWING AND HANDWORK.

(For boys.)

Freehand Drawing in simple outline.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
Vertical, horizontal and oblique lines, singly and in combination.	Between given points of varying lengths; equidistant and at varying spaces.	For these standards Freehand Drawing should be correlated with Design, Colour and Object Drawing.		
Simple and compound curves.	Based on circle and ellipse and as found in leaf forms and between fixed points.			

*This Geography is available in parts also :—

Book II, Part I (Urdu, Re. 1-2-0; Hindi, Re. 1).

Part II (Urdu, Re. 1-4-0; Hindi, Re. 1-2-0).

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
Straight-lined objects, square and rectangular.	Takhti, envelope, black-board, bucket, T and set squares, funnel, stool, glass.	Among these, subjects will be common fruits (e.g., mango, apple, guava, cucumber, bunch of grapes, plantain, etc.) and flowers and foliage (e.g., wild rose, pea, karnel, motia, lily, sunflower, etc.), each object being taken individually.	The subjects enumerated in the previous standards as well as some household objects such as umbrella (opened and closed), vases, cages, butterflies, most familiar birds, opened books and a napkin hanging from one point. Tools such as chisels, hammer, mallet, screw-driver, planes, etc., to be combined and grouped together. <i>Note.</i> —Ordinarily the class is expected to do five groups each year, the selection of objects and their grouping being left to the discretion of the teacher.	
Circular and elliptical objects.	Ring, hoop, balls of sorts, egg and fruits of such shapes as brinjal, lauki, kheera, etc.	<i>Note.</i> —Ordinarily the class is expected to do four objects from each of the two groups, the selection of objects being left to the discretion of the teacher.		
Straight and curved lines in combination. (These to be done in pencil and in outline only.) And leading up to rapid sketching in of outline.	Cricket bat, tennis racket, cup, spoon, lota, bottle, chilimchi, garha, bread roller, etc. <i>Note.</i> —Ordinarily the class is expected to do four objects from each of the above three groups, the selection of objects being left to the discretion of the teacher.	..	Outlines in pencil are all that are needed here, under the head "Freehand Drawing".	

Geometrical Drawing.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
Elementary exercise in simple Geometry. Leading up to Applied Geometry as necessary for decorative design, and handicraft purposes.	..	Dividing straight lines, erection of perpendicular, formation of angles; parallel lines, and simple polygons. Will combine with colour work in very elementary use of the compasses and set-squares for inscribing figures.	Geometrical principles form basic parts of Design and Workshop Drawing. In these classes pure Geometry will not be taught as a separate subject, but will be of the variety known as "Applied Geometry" and many opportunities will necessarily arise when this subject will be involved, its principles applied and its value recognised. Inscribed and described figures, simple geometrical problems. Decoration of spaces, and in combination with colour work.	Same as for class VII.

Colour work in Pastel and in Brush.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
In monochrome only.	As noted in the Object Drawing for this standard.			
In pastel introducing the primary and secondary colours.				
Brushwork in colour introducing primary, secondary, and tertiary colours.			Simple brush strokes and objects formed thereby and their value in decoration of space and borders. Students should do work in pencil and monochrome shading before they begin colour work.	Same as in the previous standard, but more advanced.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
More advanced colour work with the theory of colour.	Simple lessons on light, effect, both artificial and natural, and shades. Colour charts showing various shades obtained by different pigments and colour reflections and shades.	Simple decoration as for wrapper and colour work as applied to handicraft. Work in pencil and monochrome shading.

Design and Memory Drawing.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
Principles of design. Designs based on natural and conventional forms and as applied to the work of the handicraft class, and also in simple decoration for stencil and carved work. Alphabets in different styles. Leading up to correct conception of essential elements for good design.	The objects already drawn under the section "Freehand Drawing" should be utilised in teaching decorative patterns. Students should also be required to draw common objects from memory, the object being shown for a few minutes and then taken away. Ordinarily six objects, three for "decorative patterns" and three for "Memory Drawing" should be done each year.	

* Applied Drawing.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
Principles and practice of Workshop Drawing.	Full size elevations and plan of simple rectangular objects and leading up to the drawing of models already made in the handieraft class.	Full size drawing of all objects to be made in the handieraft classes.		
Application of orthographic projection Drawing and its general application to all trades.		Application of Scale Drawing to larger objects such as almirah, table, and simple furniture.		
Scale Drawing and its value.	Making of plain scales.			Development of orthographic projection Drawing showing sectional views both of plan and elevation. Full size setting out of work on rods as practised in the work-shop.

Handieraft—Stencil-cutting and Wood-work.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.

*Applied Drawing should be treated as a part of Handwork or Handieraft syllabus and should be taught by the teacher of that subject.

Subject-matter.	Classes.			
	V.	VI.	VII.	VIII.
Handicraft in wood. Involving practical bench work. Principles involved in cutting and other tools. Correct working methods with time-saving ends.	Wood-work including the use of the more common tools and the making of educative exercises such as Rectangular prism, Wind-ing strips, Octagonal block, Round ruler, Coat hook, Soap tray,	Continuing tool practice and the making up of models such as— Pin tray, Watch stand, Pen tray, Cigarette box, Simple wall bracket, Coat hanger, Blotter.	Book stand, Towel hanger, Paper knife, Decorated wall bracket, Bench hook, Mitre block, Pin board, and objects introducing simple mechanical principles.	Oxford frame, Tea tray, Carved wall bracket, Book trough, Set square, T square, Candle-stand.
Care and maintenance of tools.	Envelope rack.	Elementary tool-sharpening.	Care and maintenance of tools. The more common Indian timbers, their value and distinguishing features. Common faults of timber. Familiar means for fastening glue, screws, nails, etc.; their proper place and use.	

N.B.—(1) The syllabus is based on the assumption that six periods a week at least should be allotted to Drawing and Handwork, and that the staff for teaching Drawing and Handwork be strengthened, with two teachers of Drawing and two of Handwork in schools with double sections up to class VIII and one teacher for each in schools with single sections.

(2) Schools which cannot adopt the whole course immediately should take up the Drawing course now and the whole course as soon as possible.

Books recommended for the use of teachers :—

- (1) The teaching of Drawing—Its aims and methods, by S. Polak and H. C. Quilter (University Tutorial Press, Limited, London), 3s. 6d.
- (2) Principles of Educational Wood-work, by W. A. Milton (Blackie and Sons, Limited).

(3) Educational Handwork, by A. H. Jenkins (University Tutorial Press, Burlington House, Cambridge), 4s.

(4) Manual Training for Indian Schools, by J. Y. Buchanan (Oxford University Press).

SYLLABUS OF THE COURSES IN DRAWING WITH OR WITHOUT BRUSHWORK.

(For girls.)

LOWER MIDDLE SECTION.

Class V.

- *Drawing.*—(a) Circular and elliptical objects, e. g., ring, hoop, balls, egg, fruits and vegetable of such shapes as brinjal, melon, etc.
- (b) Straight-lined objects (square and rectangular), e.g., takhti, envelope, black-board, T and set-squares.
- (c) Combination of the two, e.g., bottle, envelope, bread roller, hat, flower-pot, etc.

Colour work.—Colouring drawings similar to those named above in monochrome only.

Blending of primary colours in pastel.

Class VI.

**Drawing.*—The same as for class V, but more difficult objects.

Colour work.—Continuation of work in blending colours leading up to secondary and tertiary combinations—in both pastel and water colours. Colouring drawings of easy objects.

Brushwork.—Simple brush strokes and leaves and flowers formed thereby.

UPPER MIDDLE SECTION.

Classes VII and VIII.

**Drawing.*—Flowers and fruits with stems, buds and leaves; groups of two or three objects that have already been dealt with.

Colour work.—Colouring of drawings similar to those named above in primary, secondary, and tertiary tints—in pastel and water colours.

Brushwork.—As in the previous standard, but more advanced.

**Drawing should be done from objects and not from copies of drawings.*

SYLLABUS OF THE COURSES IN CLASSICAL LANGUAGES (SANSKRIT, ARABIC OR PERSIAN).

Classes VII and VIII.

(Same for boys and girls.)

Reading and conversation.—To read with correct pronunciation and fluency from a reader. To use the words of the reader in simple sentences and to answer in the classical language questions based on the matter in the reader. To carry on simple conversation in the language.

Writing.—Writing to dictation or transcription.

Grammar and composition.—Only those conjugations and declensions to be learnt which have been very commonly used in the text-book. To form sentences with the help of the vocabulary of the reader.

Sanskrit.

Classes VII and VIII.

Text-book prescribed :—

(1) Sanskrit Reader, Parts I and II, by Pandit Sarda Prasad Bhattacharya (Ram Narain Lal, Allahabad), annas 8 and 10 respectively,
or

(2) Sanskrit Reader and Grammar, Parts I, II and III (Ram Narain Lal, Allahabad), annas 6, annas 6 pies 9, and annas 9 respectively,
or

(3) Sanskrit Sopanam, by K. C. Chattopadhyay (Indian Press, Ltd., Allahabad), Part I for class VII and Part II for class VIII, Part I, annas 7 and Part II annas 8,
or

(4) Sanskrit Sikshabali, Parts I and II, by Chandra Sekhar Sharma (Hindi Press, Allahabad), Part I for class VII and Part II for class VIII, annas 8 each Part,
or

(5) Sanskrit Praveshika, by Chandra Shekhar Pande (Goutam Bros., Cawnpore), Part I for class VII and Part II for class VIII, Part I annas 8 and Part II annas 10.

Grammar recommended :—

(1) Sanskrit Vyakarana ki Upakramanika, by Pandit Iswar Chandra Vidyasagar (Ram Narain Lal, Allahabad).

(2) An elementary Sanskrit Grammar, by Baburam Saksena (Ram Narain Lal, Allahabad).

Persian.

Class VII.

Text-book prescribed :—

Persian Course First Middle Class (1917, second edition). (Rai Sahib Gulab Singh and Sons, Lahore), and pages 1—30 from the Persian

Middle Course for classes VII and VIII of Anglo-Vernacular Schools, by Maulvi Syed Ahmad Ashraf Ashrafi (Rai Sahib Ram Dayal Agarwala, Allahabad), annas 10,

or

Khazin-i-Danish, Part I (whole) and Part II (pages 1—30), by Maulvi Jalal-ud-din Ahmad Jafri, Allahabad (Indian Press, Limited, Allahabad),

or

Dastgah-i-Danish, Part I (Rai Sahib Ram Dayal Agarwala, Allahabad), annas 4.

Class VIII.

Text-book prescribed :—

Pages 31 to end from the Persian Middle Course for classes VII and VIII of Anglo-Vernacular Schools, by Maulvi Syed Ahmad Ashraf Ashrafi (Rai Sahib Ram Dayal Agarwala, Allahabad), annas 10,

or

Khazin-i-Danish, Part II (pages 55 to end), by Maulvi Jalal-ud-din Ahmad Jafri, Allahabad (Indian Press, Limited, Allahabad),

or

Dastgah-i-Danish, Part II (Rai Sahib Ram Dayal Agarwala, Allahabad), annas 10.

Grammar recommended :—

(1) Dastur-i-Farsi, Parts I and II, by M. H. S. Jalal-ud-din Ahmad Jafri (Indian Press, Limited, Allahabad).

(2) Farsi Grammar by Mir Ahmad Shah (Rai Sahib Gulab Singh and Sons, Lahore).

(3) Zubdat-ul-Masadir (the new Manual of Persian Grammar), Part I, by Saiyid Muhammad Manzoor Ali (Bhargava School Book Dépôt, Aminabad Park, Lucknow), annas 2.

Arabic.

Class VII.

Text-book prescribed :—

Arbi-ki-pahli kitab, by Mir Ahmad Shah (Rai Sahib Gulab Singh and Sons, Lahore) and first twenty lessons from Arbi-ki-dusri kitab, by Mir Ahmad Shah (Rai Sahib Gulab Singh and Sons, Lahore).

Class VIII.

Text-book prescribed :—

Arbi-ki-dusri kitab from lesson 21 to end, and whole of Arbi-ki-tisri kitab, by Mir Ahmad Shah (Rai Sahib Gulab Singh and Sons, Lahore).

Grammar recommended :—

- | | | |
|-------------------|------|-----------------------------------|
| (1) Kitab-us-Sarf | (for | by Abdul Rahman of Amritsar (Ghu- |
| class VII), | | lam Ali, Bookseller, Kashmiri |
| (2) Kitab-un-Naho | (for | Bazar, Lahore). |
| class VIII), | | |

SYLLABUS OF THE COURSES IN PHYSICAL TRAINING AND HYGIENE.

(For boys.)

Physical Training.

Classes V to VIII.

The following course of exercises and games is suggested :—

1. Scout drill.
2. Group games such as kabbadi, pick-a-back race, relay race, crocodile race, hockey, football, etc.
3. Sports—jumps, running, climbing, phari, gatka, etc.
4. Marching, formation of ranks, etc.

NOTE.—Heads of institutions are at liberty to introduce other games and exercises which they consider use ful for their students.

Hygiene.

LOWER MIDDLE SECTION.

Class V.

1. Cleanliness of person, hair, skin, teeth, care of eyes and ears.
2. Clothing materials—cleanliness, repair.
3. Cleansing of rooms, furniture and fittings.
4. Value of fresh air ; ventilation.
5. Erect carriage and posture ; position at study.
6. Proper care of food ; mastication.

Class VI.

1. Warmth—fires, fuel, overcrowding.
2. Light—lighting, lamps, gas, electricity.
3. Water—washing, drinking, cleansing.
4. Breathing, perspiration, change of clothing and bedding.
5. Fresh air as food, bad air as poison.
6. Evils of tobacco, bhang, ganja, alcohol and opium.
7. Evils of over-feeding, under-feeding, unpunctual feeding.
8. Malaria, hookworm.

UPPER MIDDLE SECTION.

Class VII.

1. The skeleton.
2. The joints.

3. The muscles.
4. The internal organs, e.g., heart, lungs, kidneys, spleen, stomach and bladder.
5. The circulation of blood.
6. Brain and nerves.
7. Food, water and fresh air.
8. Insects and disease—flies, fleas, mosquitoes, lice.

Class VIII.

1. First-aid for the damage and displacement of bones.
2. Gatherings and how to treat them.
3. Sprains.
4. Burns.
5. Contagious diseases.
6. Plague, influenza, and chicken-pox, small-pox, measles.
7. Disinfection and disinfectants.

Physical Training and Hygiene.

Books recommended for the use of teachers:—

- (1) Handbook of Indian Games (National Council, Young Men's Christian Association, Calcutta).
- (2) Handbook of Playground and Compound Games (National Council, Young Men's Christian Association, Calcutta).
- (3) Manual of Physical Training for teachers, by K. R. Dube (Indian Press, Limited, Allahabad).
- (4) Vyayam Shiksha, by K. R. Dube (Indian Press, Limited, Allahabad).
- (5) The Army Young Men's Christian Association Games Handbook.
- (6) Indian Manual of First Aid in Hindi and Urdu (St. John's Ambulance Association).
- (7) Elementary Hygiene, by Bhatia and Suri (Longmans, Green and Company).
- (8) Scout Drill (Seva Samiti Boy Scouts' Association, Allahabad).
- (9) Hindustani Khel (Hindi Press, Allahabad).

*Recommended for students' use.

SYLLABUS OF THE COURSES IN NATURE STUDY (MAINLY GARDENING).

(For girls.)

LOWER MIDDLE SECTION.

Class V.

Gardening.—Preparing beds, planting seeds and watching growth; periodical cleaning; regular watering; keeping a garden calendar.

Plant life.—Previous knowledge of plant life to be summed up with reference to plants growing in the plots; seeds, studied in detail with reference to structure, food-storage, etc., conditions of germination with experiments; stems and leaves; adaptation of plants to their surroundings.

Class VI.

Gardening.—Origin of soil (from rocks by decomposition); textures (sand, silt, and clay); power of absorption and retention of moisture; need of cultivation and drainage in agriculture; need of manure, vegetative propagation (cuttings, grafting, underground runners); practical work on the foregoing to be done in the plots.

Plant life.—Work of roots, leaves and flowers in detail; tree studies; time of flowering and fruiting; bark and stem.

Museum work.—Preservation of leaves, fruits, seeds, butterflies and other specimens of plant and animal life.

SYLLABUS OF THE COURSES IN ELEMENTARY SCIENCE INCLUDING NATURE STUDY.

(For boys.)

LOWER MIDDLE SECTION.

Class V.

Time—3 periods a week.

(a) *Common objects.*—Water taps and pipes; fountains; rafts and boats; windmill; chimney; kite flying; railways; bicycle; grindstone and charkha.

(b) *Gardening.*—Preparing beds, planting seeds and watching growth; periodical cleaning; regular watering; keeping a garden calendar.

(c) *Plant life.*—Previous knowledge of plant life to be summed up with reference to plants growing in the plots; seeds, studied in detail with reference to structure, food-storage, etc.; conditions of germination with experiments; stems and leaves; adaptation of plants to their surroundings.

(d) *Animal life*.—Broad classification of animals, referring to boy's previous knowledge and introducing reptiles and fishes; life history of the fly, the mosquito, and of the butterfly or moth: common garden friends and foes.

Class VI.

Time—3 periods a week.

(a) *Physics and Chemistry*.—Effect of heat on substances; change of state, change of temperature, change of volume, use of Fahrenheit and Centigrade thermometers for daily temperature, etc., distillation of water, boiling points of water; examination of different kinds of soil and separation of soluble and insoluble parts; decantation, filtration and evaporation.

(b) *Gardening*.—Origin of soil (from rocks by decomposition); textures (sand, silt and clay); power of absorption and retention of moisture; need of cultivation and drainage in agriculture; need of manure; vegetative propagation (cuttings, grafting, underground runners); practical work on the foregoing to be done in the plots.

(c) *Plant study*.—Work of roots, leaves and flowers in detail, tree-studies, time of flowering and fruiting, bark and stem.

(d) *Museum work*.—Preservation of leaves, fruits, seeds, butterflies and other specimens of plant and animal life.

UPPER MIDDLE SECTION.

(Same for boys and girls.)

Class VII.

The use of text-books by boys should be introduced at this stage; they are not required earlier.

(a) *Measurements*.—Volumes of regular solids; use of graduated cylinder and burette in measuring volumes of liquids and of small solids.

(b) *Physics*.—Use of physical balance to find mass; weights of 1 c.c. of various substances (both solid and liquid); idea of density; experiments of expansion and contraction of solids and liquids, subject to heating and cooling, construction and explanation of principle of thermometer; finding the boiling point of water by Fahrenheit and Centigrade thermometers.

(c) *Chemistry*.—Examination of common substances with particular attention to solubility and effect of heat; the three states of matter; change of state; the indestructibility of matter.

(d) *Plant life*.—Fruit, dispersal of fruit and seeds, the food material in seeds to be tested, flowers, adaptation to various ways of pollination.

NOTE.—Museum work to be continued.

Class VIII.

(a) *Common machines*.—Demonstration of the use of pulley, pump, machines used locally for lifting water (Persian wheel, etc.).

(b) *Physics*.—Pressure; pressure exerted by liquids and gases with demonstration by simple experiments; the barometer and measurement of air pressure. Levers, principle of the balance, double weighing; extension of a spring and the spring-balance. Specific gravity of solids and liquids by means of the density bottle. Archimedes' principle applied to sinking as well as floating bodies and its application to find Specific Gravity; use of the U-tube to find Specific Gravity; numerical examples on the foregoing. Comparison of thermometers, experimentally, graphically and by calculation; conduction, convection and radiation.

(c) *Chemistry*.—Water; formation when fuel (candle oil, etc.) burns; examination of the gas (hydrogen) formed when water (steam) is passed over red-hot iron, examination of rusted iron, and conclusion that water contains hydrogen; composition of water with demonstration by electrolysis; hard and soft water. Carbon—as a constituent of coal; wood, sugar, etc. (shown by charring), and of oil (shown by soot given off); carbon dioxide—the result of combustion, tested with lime water; carbon dioxide, a constituent of air given out by respiration. Acids and alkalis tested by litmus. Constituents of sugar, starch, fat, protein; tests of such food material as grain, dal, oilseed (starch gives a dark-blue colour with iodine solution; protein gives a yellow-brown colour; fat makes a grease spot when rubbed on paper or when a drop of solution of fat in ether is evaporated on paper).

(d) *Plant life*.—Leaves—arrangement with reference to light; food-making (test with iodine solution after clearing with hot alcohol) upper and lower sides of leaves.

List of experiments for Physics and Chemistry in Elementary Science, including Nature Study, for classes VI to VIII.

Class VI.

Physics and Chemistry.

Effect of heat on substances. Change of temperature.

1. Examine by means of a Fahrenheit thermometer the change in temperature of (a) a solid, (b) a liquid, and (c) a gas while being heated.

Change of state.

2. Study what happens when a piece of (a) ice, and (b) sulphur or wax is heated.

Change of volume.

3. Examine the change in volume when (a) a solid, (b) a liquid and (c) a gas are heated.

Measurement of temperature.

(Exercises in the use of the thermometer; not much theory.)

4. Measure the temperature of the air in the laboratory, using a Fahrenheit thermometer.
5. Reading of maximum and minimum thermometer.
6. Temperature of common objects :---
- (a) Temperature of air at different times during the year.
 - (b) Temperature of water from various sources, and at various times during the year.
 - (c) Temperature of boiling water; of ice water.
 - (d) Temperature of the human body.

Evaporation and condensation.

7. Observation of natural evaporation of water: evaporation by boiling.
8. Condense water vapour on a cold surface.
9. Observation of natural condensation in the form of clouds and rain; in the form of dew. Breath during hot and cold weather. Steam from an engine.
10. Test the purity of water from various sources by evaporating and noting the residue.
11. Obtain pure water from a salt solution, well water or other water by distillation.
12. Evaporate distilled water to see if there is any residue.

Soil.

13. Separation of soluble and insoluble portions of soil by decantation and filtration.
14. Find the amount of soluble matter by evaporation of the filtrate.
15. Separation of insoluble part of soil into particles of various sizes by flotation.
16. Comparison of the water-holding capacity of different soils (by adding equal amounts of water to equal amounts of different soils, and measuring the amount of water that drains off from each; or by allowing the wetted samples to dry naturally).
17. Observation of various kinds of soil in the field. [This connects directly with section (b) Gardening of class VI.]

Class VII.

Physics.

Measurement of volume.

1. Find the volume of cubical, cylindrical, spherical and irregular solids by the use of graduated vessels.
2. Find the capacity of a large flask; of a small bottle.

Measurement of mass.

3. Use of the physical balance.
4. Find the mass of various common objects e.g. of a rupee; of 1 c.c. of wood, iron, copper, etc.; of 1 c.c. of water, oil, milk, etc.
5. Find the volume of a bottle or flask by weighing.
6. Compare the Indian, English and C. G. S. units of weight.
7. Test bazar weights for accuracy.

Heat and temperature.

8. Show that solids (as an iron rod) expand on heating, and contract on cooling. Application to iron bridges and railway rails. (Accurate measurement of co-efficient of expansion should not be attempted here.)
9. Show that a liquid expands on heating and contracts on cooling.
10. Show that a gas (air) expands on heating and contracts on cooling.
11. Construct a thermometer (mercury or alcohol).
12. Find the boiling point of water in Fahrenheit and Centigrade degrees.

Chemistry.

Matter and its three states.

1. Examine the properties (such as colour, odour, solubility in water, effect on litmus if soluble, effect of heat, etc.) of common substances, such as chalk, salt, sulphur, iron, copper, sugar, soda, copper sulphate, iron sulphate, etc.
2. Determine the solubility of common substances, at ordinary (and raised) temperature (i.e. warm water can dissolve more of a salt than cold water).
3. Show that there is no loss of weight when a substance dissolves in water, and that by evaporation the substance can be recovered in original form.
4. Make crystals from saturated solutions of sugar, alum, nitre, copper sulphate, etc.

5. Examine the three states of matter, as illustrated by water.
6. Show that matter is indestructible (e.g. by burning a weighed candle and weighing the products). (Burn a candle under a tightly-sealed bell jar until the oxygen is used up : since none of the products can escape, weight should remain constant.)

Class VIII.

Physics.

Pressure.

1. Show that the pressure of a liquid varies with depth.
2. Show that a liquid exerts pressure equally in all directions.
3. Show that air has weight.
4. Show that air presses equally in all directions.
5. Principle of the barometer. Make a simple barometer, and measure air pressure.
6. Show that the up-thrust on a solid immersed in water is equal to the weight of the water displaced by the body.
7. Find by Archimedes' principle the specific gravity of a solid which sinks in water; which floats on water.

Levers and the balance.

8. Study the principle of the balance by means of simple apparatus. Make a balance.
9. Find the weight of a body by means of double weighing.
10. If possible, test bazar balances for accuracy.
11. Find the weight of a body by means of a spring balance.

Specific gravity.

12. Find the specific gravity of a salt solution (or other liquid) by means of a density bottle.
13. Find the specific gravity of small solids by means of a density bottle.
14. Find the specific gravity of a liquid by means of a U-tube.

Thermometry.

15. Find the temperature of boiling water and of melting ice by both Fahrenheit and Centigrade thermometers.
16. Compare the scales of the two thermometers; illustrate by means of a graph. (The principle and use of the graph should be explained here.)

Movement of heat.

17. Show that heat is conducted through a solid.
18. Show that all solids are not equally good conductors of heat.

19. Show that water is a poor conductor of heat; that mercury is a good conductor.

20. Show how convection takes place in liquids (e.g. by means of potassium permanganate).

21. Show how convection takes place in glass (by means of smoke in the air over a lamp or candle).

22. Convection in nature :—

(a) The water of lakes.

(b) Air over heated land surfaces.

23. Movement of heat by radiation. (Heat from a fire; from the sun.)

24. Applications of the three methods of heat transference :—

(a) A cooking fire.

(b) Heat from the sun and its distribution over the earth.

(c) Cooling of the human body by perspiration.

(d) Air temperatures over land and water.

(e) Temperature of the soil at various depths.

(f) The use of clothing.

(g) Temperature inside and outside a house.

Chemistry.

Combustion.

1. Show that burning (of a candle or lamp) cannot take place without air.

Examination of air.

2. Show that air contains a gas that supports combustion, and an inert gas. (Burn phosphorus under a bell jar or graduated cylinder, and find out the approximate proportion of oxygen and nitrogen.)

Water.

3. Show that water contains hydrogen by studying the gas formed when steam is passed over red-hot iron. Examine the rusted iron. Natural rusting of iron. (This experiment may be supplemented by examination of the gas formed when sodium is burned in water.)

4. Show by hydrolysis that water contains oxygen and hydrogen.

Hard and soft waters.

5. Show that water from wells and rivers contains dissolved substances.

6. Show that rain-water contains very little dissolved substances.

7. Effect of boiling hard water: application to steam engines.

8. "Hard" and "soft" water and the lathering of soap.
9. Methods of softening hard waters.

Carbon.

10. Show by charring or the formation of soot that various organic substances (wood, coal, sugar, oil, etc.) contain carbon.

Carbon Dioxide.

11. Test the products of burning by means of lime water to show the presence of carbon dioxide.
12. Show the presence of carbon dioxide in the breath. In air. Regulation of amount of carbon dioxide in the air by green plants.
13. Air pollution; carbon dioxide from respiration of animals, cooking fires, burning, factories, etc., carbon from fires, oil, lights in bazars and factories.

Acids and alkalis.

14. Examine common acids (as hydrochloric, sulphuric and nitric) for appearance, smell, taste, effects on litmus and other common properties.
15. Examine ammonia, sodium or potassium hydroxide, and other common alkalis for their common properties.
16. Show the neutralizing effects of acids and alkalis.
17. Common occurrence of acids and alkalis (as in fruits, vinegar, "reh," etc.).

Composition of common food materials.

18. Test by charring for presence of carbon.
19. Test by burning for presence of water (i.e. hydrogen).
20. Test by burning for presence of carbon dioxide (i.e. oxygen).
21. Test by odour of burning for presence of nitrogen.
22. Test common food materials for—
 - (a) Starch, indicated by means of iodine solution.
 - (b) Fats, indicated by means of a grease spot on paper.
 - (c) Protein, indicated by means of iodine, or by the peculiar odour when burned.
23. Understand that these food materials are burned in the body to give energy, and that the carbon dioxide in the breath is evidence that combustion has taken place.

NOTE.—This list of experiments is intended to indicate the direction in which the teacher can develop his course of practical work, rather than to give a detailed list of experiments, each of which must be done, and beyond which nothing may be done. No experiments should be used to explain simple facts and experiences of every-day life.

The following is suggested as the most desirable method of carrying out the experiments in Elementary Science, including Nature Study, for classes VI to VIII.

			Demonstration by teacher.	Performed by students.	Observation and discussion of natural phenomena.	One experiment by entire class.
CLASS VI.						
<i>Physics and Chemistry—</i>						
Exp. 1 ..	..	..	X	..		
Exps. 2—6 ..	..	..	..	X		
Exp. 7 ..	..	..	..	X	X	
Exp. 8 ..	..	..	..	X		
Exp. 9 ..	..	..	..	..	X	
Exp. 10 ..	..	..	..	X		
Exp. 11 ..	..	..	X	..		
Exps. 12—14 ..	..	..	..	X		
Exp. 15 ..	..	..	X			
Exp. 16 ..	..	..	X	..	..	X
Exp. 17 ..	..	..	..	..	..

CLASS VII.						
<i>Physics—</i>						
Exps. 1—6 ..	..	..	..	..
Exps. 7—11 ..	..	..	X			
Exp. 12 ..	..	..	..
<i>Chemistry—</i>						
Exps. 1—4 ..	..	..	..	X		
Exps. 5—6 ..	..	..	X	..		

CLASS VIII.						
<i>Physics—</i>						
Exps. 1—5 ..	..	..	X			
Exps. 6—7 ..	..	..	X	X		
Exps. 8—16 ..	..	..	..	X		
Exps. 17—21 ..	..	..	X	..		
Exps. 22—24 ..	..	..	..	..
<i>Chemistry—</i>						
Exp. 1 ..	..	..	..	X		
Exp. 2 ..	..	..	X	..	..
Exp. 3 ..	..	..	X	X	X	
Exp. 4 ..	..	..	X	..	..
Exps. 5—6 ..	..	..	..	X	..	
Exp. 7 ..	..	..	X	..	X	
Exp. 8 ..	..	..	..	X	X	
Exp. 9 ..	..	..	X	..	X	
Exps. 10—12 ..	..	..	..	X	..	

	Demonstration by teacher.	Performed by students.	Observation and discussion of natural phenomena.	One experiment by entire class.
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Chemistry—(concluded).

Exp. 13	×
Exps. 14—15	×	..
Exps. 16—22	×	..
Exp. 23	×

Some of the experiments can best be performed and explained by the teacher; some can be demonstrated by the teacher and then performed by the students; some are intended for observation and discussion of natural phenomena; no. 16 in class VI can well be performed as a single experiment by the class as a whole, and perhaps other experiments might be treated in the same way. It is intended that the teacher shall use his judgment as to the most effective way of performing the experiments, having due regard to the nature and difficulty of the experiment, and to the amount of apparatus available.

Text-book prescribed:—

A text-book on elementary Science and Nature Study, by K. C. Bhattacharya (Indian Press, Ltd., Allahabad), (Hindi and Urdu), Part I for class VII and Part II for class VIII, annas 12 each part of each edition.

Books recommended for the use of teachers:—

- (1) Vigyan Praveshika. (Vernacular Science Society, Allahabad).
مفتاح العلوم
- (2) Nature Study in Hindi and Urdu, by D. N. Mukerji (Oxford University Press).
- (3) Fortey, Isabel C.: Plant Studies for Indian Schools (Blackie and Son, Limited), 1921.

SYLLABUS OF THE COURSES IN INDIAN MUSIC.**LOWER MIDDLE SECTION.**

(Same for boys and girls.)

Class V.

By the time a student reaches class V he must be about eleven years of age and it would be quite time to give his voice definite training. As music in its skeleton is a combination of twelve notes it will be essential to devote the greatest attention to the production of correct notes. The reproduction of these notes correctly is about all that a student could do in a year. The teachers should exercise the boys in this by writing new combinations on the black-board every time and making the class sing them.

The above, however, itself will be very trying, and it will therefore be essential to present a variety to the student in the form of songs. A few simple "Sargams," two prayers, and two or three simple songs are suggested.

But before the notes are taught one month should be devoted to the training of time beats of the following Tals :—Dadra, Tin Tal and Ek Tal.

The notation that the boys will learn at this stage will consist of writing down the flats and sharps in the three octaves.

Class VI.

Theory.—More advanced combinations of notes should be taught at this stage and the student should be able to reproduce without aid the scales of the three primary groups. Time, division and the formation of Tals will naturally come here.

Practice.—Three advanced sargams—one belonging to each of the three main heads (*Thats*).

Three advanced prayers—one belonging to each of the three main heads (*Thats*).

Three songs—one representative of each of the three main heads (*Thats*).

UPPER MIDDLE SECTION.

(Same for boys and girls.)

Class VII.

Theory.—A more detailed knowledge of notation should be called for in this class and the student should be expected to reduce simple sargam to notation with time bars. The ten groups and their formation should be taught and four more tals given, viz., Chantal, Dhamar, Jhup, one Sloka from Abhinava Rag Manjari and Hindi Dobas from Kalpadruman Kur.

Practice.—One song, one Lakshanr Git and one Sargam in each *That*.

Class VIII.

Theory.—Rag formation and Rag characteristics, styles, asthai, antara, classification under *Thats*. Elementary graces and their use in notation.

Practice.—One Khyal, one Dhrupad and one Dhamar from each *That*. Elementary Swara Prastar and *Tans*.

SYLLABUS OF THE COURSES IN DOMESTIC SCIENCE
(SIMPLE PHYSIOLOGY, HYGIENE AND SEWING).

(For girls.)

Simple Physiology and Hygiene.

LOWER MIDDLE SECTION.

Class V.

A very simple description of (1) the skeleton; (2) the organs of digestion and excretion; (3) the heart and its work; (4) the lungs and their work; (5) the skin and its pores. Cleanliness of skin, mouth, teeth, eyes and ears. Cleanliness of clothes, beds, house and cooking vessels. Fresh air and means of ventilation. Value of the different kinds of food; rules for eating. Water; the usual sources of contamination and the means of securing pure water. The need for exercise and sleep.

Class VI.

Revision of work previously done. Simple rules for care of the sick, arrangement of the room, rest and food. Precautions against sore eyes, malaria, cholera, small-pox, plague. Treatment of cuts, burns and scalds. Simple rules for care of small children and infants: sleep, bathing, clothing and feeding. Tuberculosis.

UPPER MIDDLE SECTION.

Classes VII and VIII.

The same course, as is prescribed in Hygiene for these classes for boys, with the following modifications:—

In class VII instructions in the care and training of small children to be continued, and the following to be added to the syllabus dealing with the care and training of children:—

Diet and preparation of food. Care of the eyes and teeth. Play and exercise. Training in habits of cleanliness, order, obedience and truthfulness.

The following further addition should be made to the syllabus for class VII:—

Simple rules for cleanliness for patient, changing sheets, choice of food and its preparation, taking temperature.

In class VIII instructions in the care of the sick to be continued.

NOTES.—1. The preparation of dishes suitable for invalids (sago, *khichri*, barley water, etc.) should be included in the instructions given in connexion with the care of the sick.

2. The teaching of temperance may be given along with the teaching of Hygiene.

Books recommended for the use of teachers:—

- (1) **गृहस्थ शास्त्र** (Domestic Economy) by Lakshmi Dhar Bajpai (Tarun Bharat Granthawali Karyalaya, Daraganj, Allahabad).
 (2) **Shahrah Tandurusti or स्वास्थ्य रक्षा** (Rai Sahib Gulab Singh and Sons, Lahore).
 (3) **Personal and Domestic Hygiene for the School and Home**, by Mrs. Harold Hendley (Rai Sahib Gulab Singh and Sons, Lahore).

Sewing.**LOWER MIDDLE SECTION.****Classes V and VI.**

Tucking and pleating.

To cut out and make up three garments, i.e.,

(i) *Pyjama* or petticoat.

(ii) *Kurta* or blouse.

(iii) Frock or boy's shirt.

Optional.—*Chikan* work; *karchobi* work; shadow work; waistcoat stitches; more advanced knitting.

UPPER MIDDLE SECTION.**Classes VII and VIII.**

Two garments selected by the headmistress to be cut and made.

Optional.—*Chikan* work; *karchobi* work; English embroidery; drawn thread work; crochet; knitting.

SYLLABUS OF THE COURSES IN COOKING.

(For girls.)

LOWER MIDDLE SECTION.**Class V.**

Preparation of simple drinks, such as *sharbat*, tea, cocoa, etc. Making a fire, preparation of *roti*, *chutnies*, *raitas*.

Class VI.

Revision of previous work. Management of the kitchen: Preparation of *dal*, *bhat*, *tarkari*, and *puri* or meat (*sada gosht*).

UPPER MIDDLE SECTION.**Class VII.**

Preparation of *puris*, *kachauris*, *bāra*, *halwa*, *khir* and like dishes for non-vegetarians.

Class VIII.

Dishes for invalids, such as sago, *khichri*, barley, etc., and special dishes for feasts, including sweets.

SYLLABUS OF THE COURSES IN SPINNING.

(For girls.)

LOWER MIDDLE SECTION.

Classes V and VI.

Spinning yarn of 10 to 15 counts from ready made slivers on the *takli* and on the *charkha*.

Making up yarn into skeins (*lachhi*), calculating count of the yarn spun.

Judging the uniformity and strength of the yarn spun.

UPPER MIDDLE SECTION.

Classes VII and VIII.

(a) Ginning. Carding. Making slivers.

Spinning yarn of 20 to 30 counts on the *charkha*.

Making up the yarn into skeins.

Calculating the count of the yarn spun.

Judging the uniformity and strength of the yarn spun.

(b) History and importance of the art of hand-spinning in India.

SYLLABUS OF THE COURSES IN CALLISTHENICS.

(For girls.)

Classes V to VIII.

As indicated in the following book :—

A Manual of Physical Education for Girls, by Miss Florence Salzer, Director of Physical Education, Isabella Thoburn College, Lucknow.

SYLLABUS OF THE COURSES IN A SECOND VERNACULAR (HINDI OR URDU).

(For girls.)

LOWER MIDDLE SECTION.

Class V.

Reading.—To read accurately at sight from the text-book; to explain the meanings of words and sentences; and to answer questions on the subject-matter of the reader.

Writing.—To write sentences to dictation from the text-book in Urdu or Nagri character. Copy-books to be shown.

Text-book prescribed :—

Hindi.—First half of lower Primary Girls' Reader, by M. B. Hill (Indian Press, Limited, Allahabad), annas 8; or Lower Primary Girls'

Reader, Part I (Newal Kishore Press, Lucknow), annas 4; or Lower Primary Reader for Girls, Part I (Newal Kishore Press, Lucknow), annas 3 pies 6.

Urdu.—Second half of Lower Primary Girls' Reader, by M. B. Hill (Indian Press, Limited, Allahabad), annas 8; or Lower Primary Girls' Reader, Part I (Newal Kishore Press, Lucknow), annas 4; or Lower Primary Reader for Girls, Part I (Newal Kishore Press, Lucknow), annas 3 pies 9.

Class VI.

Reading.—To read correctly at sight from the text-book; to explain the meanings of words and sentences; and to answer questions on the subject-matter of the reader. *Recitation*.

Writing.—To write sentences to dictation from the text-book in Urdu or Nagri character. Copy-books to be shown.

Text-book prescribed :—

Hindi.—Second half of Lower Primary Girls' Reader, by M. B. Hill (Indian Press, Limited, Allahabad), annas 8; or Lower Primary Girls' Reader, Part II (Newal Kishore Press, Lucknow), annas 4; or Lower Primary Reader for Girls, Part II (Newal Kishore Press, Lucknow), annas 4.

Urdu.—Second half of Lower Primary Girls' Reader, by M. B. Hill (Indian Press, Limited, Allahabad), annas 8; or Lower Primary Girls' Reader, Part I (Newal Kishore Press, Lucknow), annas 4; or Lower Primary Reader for Girls, Part II (Newal Kishore Press, Lucknow), annas 4 pies 6.

APPENDIX.

(1) *Memorandum on the teaching of historical stories to classes V and VI and the type of stories in History that should be taught.*

The object of teaching historical stories in the lower middle classes of our schools is threefold.

In the first place the stories are a means of introducing to our boys and girls the heroes and heroines of India and of creating among them an interest in the achievements of their past and a pride in the history of their country. In the second place the stories are useful as an instrument of moral instruction for they influence the character of the young through the study of the examples of the lives of the great.

Thirdly, they develop in them the sense of time, of before and after and of continuity which is the basis of historical understanding.

The object of the stories is not to teach history as history for at this stage the boys are not able to appreciate the processes of social or political evolution or historical development nor are they able to appreciate properly the relations of cause and effect. Their interest is mainly human and romantic. What appeals to them is stir and movement, adventure, heroism and glory. They are at a stage when the constructive dispositions of the mind are beginning to grow strong and therefore they are beginning to become interested in discovery, invention and the structural framework of their society.

They are awakening from the dreamy ego-centric state of childhood and becoming aware of the great "other" and how they are related to it.

The fairy tales of children have therefore to make room for stories of real men and women, as these stories will in their turn make room for real history.

In order to achieve these objects it is necessary to consider the matter and form of the stories.

In so far as matter is concerned the aim should be to select those characters from history which constitute landmarks in the development of the people and they should not be confined to only one or two fields of activity. They should be chosen from kings, generals, statesmen, priests, religious reformers, poets, artists, scientists, philosophers, inventors and all those who have made valuable contribution to the culture and civilization of the people. These characters should belong to all known periods of history and should be arranged in a chronological order.

Their lives should be treated not in a strictly historical manner, but imaginatively. Legends may be used freely but discriminately, in order to emphasize the traits of character which have to be presented.

Then in dealing with the lives of the personages selected care must be exercised in describing those incidents of their lives and those aspects of characters which are likely to evoke a real emotional response so that they "will feel the splendour of heroism, the worth of unselfishness and loyalty to an ideal, and the meanness of cruelty or cowardice"; they will learn how the patriot has loved his country and how the individual has earned the gratitude of posterity.

No effort should be spared in excluding matter which is likely to promote feelings of communal bitterness and antagonism for the treatment of the history of India is easily liable to such perverse nature nor should have sordid, cruel and lustful stories any place in this scheme. With regard to the form of the stories it must be clearly understood that stories must be stories and not mere summaries of history. Their appeal must be to intellect through imagination and feeling. This is only possible if they are narrated in a vivid, racy and picturesque style. It is not necessary for this purpose to invent incidents and details or to introduce irrelevant and extraneous stuff for the sake of creating interest. What is needed is the element "which quickens imagination and gives life and reality to persons and events, whatever helps them to believe in the story and to see the actors in it as real men and women, the personal appearance of great men, their characteristic action and bearing at decisive moments, their recorded sayings". The legends which testify how they have stamped themselves on the popular imagination are all of value.

The matter of the stories should be historically sound, the description of men and events reasonably full and the narration impressive. The stories may be told by the teacher and may be dramatised and acted by the pupils, may be read aloud by the teacher and retold by the pupils and may be read silently and written out by the pupils. In teaching stories pictures, coins and other illustrative material should be used.

(2) Memorandum on the Teaching of Drawing and Handwork.

The teaching of Drawing in the majority of our schools confines itself at present to the development of skill in copying from the flat, while the teaching of Handwork limits itself to the exercise of certain regulated manipulations necessary in the construction of a numbered and ordered set of models.

Such teaching makes a virtue of slavish imitation and discourages originality and the exercise of imagination. Most pupils show their dislike of its restrictions by giving up Drawing and Handwork at the earliest occasion and thus lose their opportunity "to learn by doing"; others who possess a natural liking for draughtsmanship or craft are actually harmed by adherence to laborious copying and so do not even become accurate copyists as, in attention to reproduction of details, they fail to grasp the vision of the whole.

"To-day the best teaching is based on the real wants of the child, who, coming into a strange world, must needs learn its ways, the meaning and use of the things he sees, their relation to each other and to himself, and something of the joy and beauty of life.

"The keynote of the best teaching to-day is development of mind of the student, so that not only shall his powers be trained, but he shall be inspired to put forth the very best that is in him. To this end he is encouraged to seek for and to discover the reasons for all he sees and for all that he is asked to do, so that with full understanding of his object and of means of attaining it, he may exert his whole force without haste and without waste." Thus we come to the study of structure with a purpose in nature and in art as a common basis for work in the drawing class room and the manual work room. No longer do we teach the pupil to copy the leaf or its representation on the black-board, we want him first to ask "why is the leaf built thus? Why is it thus attached to the twig, the twig to the branch and the branch to the parent stem? Why does the craftsman use such and such a joint in pottery and such another in wood? What is the virtue of the round or of the pointed arch in building? How do these colour effects arise, and with what combination of pigments can they be represented?" This is a real training of the mind and eye in searching for truth and of the mind and hand in expression of the truth discovered. With such a principle underlying the teaching, correction is not merely a shortening here or a lengthening there, but a criticism of the pupil's capacity for analysis and synthesis, and estimate of their powers of observation and construction.

If the teacher of drawing or handwork can establish in the minds of his pupils a sense of the relation of the part to the whole he has done a service to the pupils themselves and to his colleagues in education that cannot be estimated. Such a sense connotes an appreciation of position, direction and proportion—the ideal Euclid, with his point, line and space—the desideratum of the Geography students in the study of distributions on the world surface and on the map. He has done more, for it is the sense of relation and proportion that makes the useful citizen.

No longer therefore may the Drawing Master and the Manual instructor segregate themselves in their own particular class rooms; they must consider their work as closely related to the work in every other room in the school. They will then have little difficulty in correlating the different sub-divisions of their own subjects. Object drawing, nature and plant drawing, colour, design, handwork, memory drawing and imaginative work may be temporarily differentiated for purposes of class teaching, but they are all closely linked together. "They form a unity to which each part is to some extent essential." It is for the teacher to see that in the manual work and art rooms these relations are not sacrificed to the mere achievement of facility in the manipulation of the tools or of the media of instruction; it is for him to keep ever in view the ultimate aim of his teaching and to eliminate all that is purposeless. To teach perspective as a mere trick of drawing, to practise design without any idea of decoration, such are the mistakes of the past which are to be avoided in the future. This does not mean that technique is to be neglected, but that it is to be treated as a means to an end.

India is the home of design, and yet this branch of work in the drawing and manual work class room of our secondary schools has been neglected more than any other. The curriculum now offered for the Middle classes gives opportunity for purposeful design that should have the most valuable results, if it can be carried out in practice by teachers in a full spirit of co-operation.

A successful teacher of Drawing and Handwork has given the benefit of his experience in the following brief maxims for teachers :—

- (1) Awaken curiosity, arouse interest and teach the child to see things as they actually appear, and ultimately to appreciate what is beautiful.
- (2) Retain interest by variety of work and study of the individual child, sacrifice the chair of comfort to the needs of your pupils and be always moving about among them, directing here, correcting there, always helping.
- (3) Give assignments to the class and to individuals just within their capacity, sufficiently difficult to call for exercise of effort, but not so difficult as to create despair. In this way develop co-ordination of mind and muscle, as well as capacity to attempt a task with the certainty of winning through.
- (4) Make your pupils realize that for you yourself Drawing and Handwork are real vital interests, and by your own personality awaken enthusiasm in them.
- (5) Train your pupils so that they may find in Drawing and Handwork a profitable and pleasurable recreation for leisure hours throughout their life.

(3) Memorandum on Physical Training and the teaching of Hygiene.

1. *Physical Training.*—In carrying out the school's course in physical education, the teacher should keep in mind the close relation of this course to the lessons in hygiene taught in the respective classes.

Exercises should, as far as possible, be held out of doors. At all times teachers should strive for correct carriage, both in sitting and in walking and also in standing. By developing the ideal of good posture through literature, pictures and examples from among both children and adults, this standard will best be attained. No exercise is beneficial if the child is allowed to stand with drooping head and flattened chest.

Exercises involving large groups of muscles take more than those involving the small groups: a body movement must be made more slowly than an arm movement. Respiratory exercises especially should be given slowly, with a slight pause at the end of expiration, never at the end of inspiration, since holding the breath is bad for the circulation.

It is a good plan to have a two minutes period of vigorous running or a fast game at about the middle of the morning session, and again as a break in the afternoon session, in addition to a regular ten-minutes exercise period towards the middle of the day.

In all exercises give commands sharply, cheerily, and vigorously. The strength of the reaction largely depends on the spirit of the command. There are two kinds of command: (1) The *preparatory* command, which tells what is to be done, and (2) the command of *execution* which starts the action. There should be a sufficient pause between the preparatory command and the command of execution for the pupil to understand what he is to do. The command must be distinct and animated, but should not be shouted: the degree of loudness required will depend upon the size of the class and the competing noises of the school's environment.

Marching should be included throughout the course, and wherever possible this should include figure marching—so valuable for the development of rhythm, co-operation, and attention.

Those games should be emphasized that provide (1) fairly strenuous exercise, (2) combined with much scope for team work, (3) for a considerable number of players, (4) in a reasonable time, and (5) without unduly heavy expenditure on grounds and equipment. Inter-class and inter-school sports should be encouraged, and here the emphasis should be put on loyalty to one's school rather than on piling up points for the individual.

2. *Hygiene.*—Hygiene is not yet, and probably never will be, a conventionalized subject, with a static and traditional content. It therefore becomes necessary for each teacher to review the possibilities, and with the limitations of his situation clearly in mind to formulate a plan of work which for him shall seem most promising of good results.

Facts and ideas that are taught with conviction will have much more effect than any amount of scientific baggage that is loosely grasped by the teacher himself, and not part and parcel of his own thinking.

It does no good to conduct a class in hygiene in a foreign jargon of scientific terms and alien ideas. Sanitation cannot be profitably discussed in an insanitary school building except as part of a programme to put things right then and there. A bookish discussion of fresh air in an ill-ventilated class room does harm rather than good. The study of hygiene must issue in practically increasing the physical efficiency of the pupils and the families from which they come.

The teacher should invite medical inspection and give intelligent obedience to expert direction. He must impress upon his pupils the utter futility of quacks and nostrums, and make clear what the scientific physician *can* do, and what he cannot do. He should aim to have all his pupils leave school with more interest in the *prevention* of disease than in its cure.

(A) Memorandum on the teaching of Domestic Science.

The purpose with which the course in Domestic Science is included in the curriculum must be borne in mind in determining the methods of instruction to be adopted. This purpose is to ensure that the pupils may acquire the art of healthy living, and also skill in various activities which are essential in home life. It is evident therefore that in every branch of the subject the instruction must be made as practical as possible, and that every opportunity must be taken to form habits in accordance with the principles that are taught. Unless this is done the course of instruction will leave no permanent impression on the pupils.

The course as prescribed includes the following subjects :—Physiology, hygiene, first aid, home nursing, home management, sewing and cooking. Detailed suggestions for dealing with these are given below :—

Physiology.—The teaching of physiology should be regarded as a preparation for the better understanding of the principles of hygiene. The subject should therefore be treated in outline only, special attention being given to those parts of the subject which are necessary for this purpose. A very simple course is prescribed for the Lower Middle Section, while that for the Upper Middle Section is somewhat fuller, but even in the latter no attempt should be made at a detailed treatment. In both full use should be made of illustrative charts and diagrams and the pupils should themselves be required to draw diagrams.

Hygiene.—The teaching of the principles of hygiene must be postponed till the pupils have developed some power of reasoning, but before this stage is reached it is the duty of teachers to train their pupils in habits of healthy living through the discipline of regular duties, and to impress on their minds the essential rules of health in as simple and direct form as possible. Thus in the lower classes the teacher should train the children to be clean and orderly in their personal habits and should require them to help in keeping their class room and its surroundings clean and neat. In doing this he should make the children realize that they have duties in these matters not only to themselves but to their school-fellows and to their homes. The teaching given at this stage should be informal, and should not be made the subject of regular lessons. At the middle stage the pupils should be prepared to understand something of the principles on which the rules of health are based and the practice of healthy habits already established should be reinforced by an appeal to intelligence and reason. The principles taught should invariably be illustrated by reference to the conditions of the pupils' own lives and they in turn should be required to give illustrations drawn from their own experience. The same method of teaching should be followed in the higher classes, though as the pupils advance in reasoning power the principles of the subject should be explained more fully, and their application worked out in greater detail, especially with regard to the duties of the individual to society.

First-aid and Home Nursing.—The teaching here must be practical as far as it is feasible. Thus in first-aid each pupil must practise simple bandaging, etc., and demonstrations should be given of the methods of treating minor accidents. In nursing the pupils should have actual practice in the arrangement of a room in case of sickness, in changing sheets, taking temperatures, etc.

Sewing.—Sewing is not only a useful art of definite value in the home, but it provides an outlet for constructive power and artistic feeling and a valuable source of enjoyment for leisure time. In order that the subject should have its full value all these possibilities should be borne in mind in planning the work of the different classes.

In the early stages the chief aim is to give the children some skill in the simpler processes of sewing. They should be given materials which they can handle easily (soft firm cloth, large needles, smooth thick thread in bright colours), and they should make large stitches which should increase in regularity as the result of practice. Decorative stitchery (large coloured sewing combining construction and ornament) is particularly suitable here. Even at this stage, however, all the work done should serve some practical purpose, and the children should help in the planning, measuring and fixing of the articles they make, e.g., a child can make a sheet for a doll's bed and herself measure the bed and make allowance for hems, etc.

In the middle and high stages the work should become more advanced in character. The standard of workmanship should improve steadily in each class till the stitching becomes rapid, even and fine, and the finish of each detail careful and thorough. Emphasis must be laid on the latter point owing to the general failure to realize its importance. The proper methods of mending should now be taught and pupils should be encouraged to bring garments of their own on which to practise these. Increasing emphasis should be given to the training of the pupils in the planning and cutting out of garments; and whatever method of teaching pattern-making is adopted, there should be definite instruction on the parts of the pattern and their relation to the human figure, based on careful observation by the girls themselves. As far as possible the pupils should have some freedom of choice of materials in order that their judgment and taste may be trained.

At all stages it is desirable to show pupils finished examples of the articles which they are learning to make. The study of good models is almost the only way in which good standards of taste and workmanship can be formed.

(5) *List of books on methods of teaching in Anglo-Vernacular Boys' and Girls' Schools, recommended for the guidance of teachers :—*

1. Of general value :—

The Village Teachers' Journal. Ten numbers a year. Published in English and Urdu editions by the Village Teachers' Training Institute, Moga, Punjab, at Rs. 2-8 a year. Hindi edition from the North India Tract Society, 18, Clive Road, Allahabad.

A Primer of School Method, by T. F. G. Dexter and A. H. Garlick. Longmans, 5s.

A Curriculum for the Community Middle School, by Edith B. King and Earl L. King, Methodist Publishing House, Madras, 1924. Pp. 148. Loose leaf covers. Rs. 3. Very valuable.

The Course of Study of Baltimore County Public Schools. Published by Warwick and York, Baltimore, U. S. A. 1921. Pp. X, 696. Very full and helpful details as to the best ways of teaching each subject in each standard.

Instruction in Indian Secondary Schools, by A. H. Mackenzie. Published by Oxford University Press. Rs. 6-3.

Foundations of Method, by W. H. Kilpatrick. Macmillan, 1925. Pp. 383. \$2.00.

Village Schools in India, by Mason Oleott, Association Press, 5, Russell Street, Calcutta, 1926. Pp. xi, 235. Paper. Re. 1-8.

Modern Elementary School Practice, by George E. Freeland. Macmillan, 1919. Pp. 406. \$1.60.

The Class-room Teacher, by G. D. Strayer and N. L. Engelhardt. American Book Company, 1920. Pp. 400. \$1.48.

Suggestions for the consideration of Teachers. His Majesty's Stationery Office.

Schools with a Message in India, by D. J. Fleming. Oxford University Press, 1921. Pp. 209. 5s. Also in cheaper paper edition.

School Management and Methods of Instruction, by G. Collar and C. W. Crook. Macmillan. 4s.

Class-room Tests, by C. Russell. Ginn, 1926. Pp. 346. \$1.60.

General Methods of Teaching in Elementary Schools, by S. C. Parker, Ginn London, 1919. 8s. 6d.

Brief Guide to the Project Method, by James G. Hasic and Sarah Chase. World Book Company, New York, 1924. Pp. X, 243. \$1.80.

The New Examiner, by P. B. Ballard. Hodder and Stoughton, London; Longmans, Calcutta, 1924. 6s.

How to Teach, by Strayer and Norsworthy. Macmillan, 1917. 8s. 6d.

Modern Developments in Educational Practice, by Sir John Adams. University of London Press, 1922. 6s.

Research for Teachers, by B. R. Buckingham. Silver, Burdett and Company, 1927.

Educational Movements and Methods. Edited by Sir John Adams. Harrap.

Outlines of Child Study. Edited by Benjamin C. Gruenberg. Macmillan, 1918.

The Project Method, by W. H. Kilpatrick. Macmillan, London. 1s.

A Project Curriculum, by M. E. Wells. Lippincott, London. 1919. 8s. 6d.

The Child, His Nature and His Needs. Edited by M. V. O'Shea. Pp. 516. The Children's Foundation. Valpariso, Indiana, U. S. A., 1924. \$1.00.

2. The Teaching of English :—

The Teaching of English in India, by H. G. Wyatt. Oxford University Press, Bombay, 1923. 3s.

Self-Help Methods of Teaching English, by J. W. Wohlfarth. World Book Company, New York, 1926. Pp. 294. \$1.88. Concrete, practical help on class-room problems and procedure in elementary English.

Teaching Primary Reading by the Story Method, by W. J. McKee. Christian Literature Society, Madras, 1924. Pp. 101. Annas 5. (Edition in English.) This is the best guide to the teaching of reading in India that is now available : most of the contents are equally applicable to middle school and to primary school.

How to Teach Handwriting, by F. N. Freeman and M. L. Daugherty. Houghton Mifflin Company, 1923. Pp. 305. \$1.80.

The Direct Teaching of English, by P. C. Wren. Longmans.

The Teaching of Modern Languages and the Training of Teachers, by Karl Breul. Cambridge University Press. 5s.

The Teaching of English in the Far East, by Lawrence-Faucett. World Book Company, New York, 1927. Pp. xvi, 220. \$1.80.

Memorandum on the Study of Languages : Scotch Education Department Wyman and Sons.

Teaching the Mother Tongue, by P. B. Ballard. Hodder and Stoughton. 4s. 6d.

Clear Speaking and Good Reading, by Burrell. Longmans.

Through the Gateway. Compiled by Florence Brewer Boeckel. Published by the National Council for Prevention of War, 532 17th St., N. W. Washington, D. C., U. S. A. Pp. vii, 118. \$50. A splendid collection of supplementary stories and poems, pageants and plays, games, and projects of good will, with a classified bibliography and a list of sources of material. Nine-tenths of the material is as useful in India as in America.

Principles of Language Study, by Harold E. Palmer, Harrap. Pp. 224. 6s. See also references on Silent Reading under Urdu and Hindi.

3. The Teaching of Urdu and Hindi :—

Silent Reading, by J. A. O'Brien. Macmillan, 1921. Pp. 229. \$1.72.

Essential Principles of Teaching Reading and Literature, by S. A. Leonard, Lippincott, 1922. Pp. 460. \$2.00.

One Hundred Ways of Teaching Silent Reading, by Nila Banton Smith. World Book Company, New York. Pp. x, 149. \$1.40. Well-organized classified exercises for all standards, for the teacher's immediate use.

Teaching Primary Reading by the Story Method, by W. J. McKee. Edition in Urdu available from the office of *The Village Teachers' Journal*, Moga, Punjab. The best inexpensive handbook for the teacher of reading available in Urdu.

Teaching Primary Reading by the Story Method, by W. J. McKee. Hindi edition. Christian Literature Society, U. P. Branch, Allahabad, 1927. Pp. 135. Annas 6.

4. The Teaching of Mathematics :—

The New Methods in Arithmetic, by E. L. Thorndike. Rand McNally, 1921. Pp. 260. \$1.50.

The Teaching of Arithmetic, by D. E. Smith, Ginn, London. Pp. 196. 5s. 6d. Memorandum on the Teaching of Arithmetic. Scotch Education Department, Wyman and Sons.

The Teaching of Mathematics in Secondary Schools, by Arthur Schultze. Macmillan, 1912.

A History of Elementary Mathematics with Hints on Methods of Teaching, by Florian Cajori. Macmillan. \$2.25.

An Arithmetic for Teachers, by William F. Roantree and Mary S. Taylor. Macmillan. \$2.50.

The Thorndike Arithmetic. Rand McNally and Company, Chicago. Book I, \$.70; Book II, \$.80; Book III, \$.90. Three books covering Arithmetic through the middle school, edited by the famous educational Psychologist. These books will be very suggestive for wide-awake teachers in India. They have already been translated into Spanish, Chinese and Japanese.

Social Arithmetic, by Frank M. McMurray and C. E. Benson. Macmillan, 1927. Book I, \$.88; Book II, \$.96; Book III, \$1.08. This is one of the most improved American Arithmetic series; it will prove helpful to teachers in securing a healthy motivation for arithmetic, by suggesting facts in which children are naturally interested, from industry, commerce, health and government, for quantitative study.

5. The Teaching of History :—

The Teaching of History in Elementary and Secondary Schools, by Henry Johnson. Macmillan, 1925. Pp. xxix, 497. 8s. 6d.

The Teaching of History and Civics, by H. E. Bourne. American Teachers' Series.

The Relations of Geography and History, by H. B. George, 5th edition. Edited by O. J. R. Howarth. Oxford University Press, 1924. Pp. viii, 330. 5s.

The Teaching of History in Junior and Senior High Schools. Ginn, 1921. Pp. 294. \$1.48.

Making History Graphic, by D. C. Knowlton. Scribners, 1925. Pp. 154. \$1.60

6. The Teaching of Geography :—

Geography in Schools, by James Fairgrieve. University of London Press.

The Teaching of Geography in Elementary Schools, by Archer, Lewis and Chapman. A. and C. Black, 1918. Pp. 258. \$1.60.

"Bhugol" The Hindi Journal of Geography. Edited by Pandit Ram Narain Mishra (Monthly.) The Indian Press, Allahabad, Rs. 3 a year.

Geography, formerly "The Geographical Teacher." The Magazine of the Geographical Association, Central Office: Marine Terrace, Aberystwyth, Wales. Affiliated Associations in India. Membership including the three numbers of the magazine a year: 5s.

The Journal of Geography. Organ of the National Council of Geography Teachers (U. S. A.) Nine issues a year. Published by A. J. Nystrom and Company, 2249, Calumet Avenue, Chicago, U. S. A. Membership in the Council, including the Journal, \$2.00 a year, plus \$.27 foreign postage.

Stamps, by J. N. Hollister. Published by the Methodist Publishing House, 19 Mount Road, Madras. Annas 4. A handy little booklet, telling about the hobby of postage stamp collecting, and showing how the Geography teacher may use it among his pupils.

Principles and Methods of Teaching Geography, by F. L. Holtz. Macmillan, 1913. Pp. 371. \$1.60.

7. The Teaching of Drawing :—

The Teaching of Drawing : Its Aims and Methods, by Solomon Polack and H. C. Quilter. University Tutorial Press. 3s. 6d.

The School Arts Magazine. Published by the School Arts Press, Worcester, Massachusetts, U. S. A. \$3.50 a year. Also see the Portfolios, such as "Animals and Toy Drawing" by the same publishers.

See also the sections on Drawing and Fine Arts in *The Course of Study of Baltimore County Public Schools* under the General list above.

8. The Teaching of Manual Training :—

Manual Training for Secondary Schools in India, by A. H. Mackenzie. The Indian Press, Allahabad.

Industrial Arts for Elementary Schools, by Bonser and Mossman. Macmillan.

See also the sections on Manual Training and Industrial Arts in *The Courses of Study of Baltimore County Public Schools* listed under books of general value.

9. The Teaching of Classical Languages :—

The Classical Investigation Report, Vol. 1. American Classical League. Published by the Princeton University Press, 1924. Pp. 303. Contains detailed suggestions for improvement in the teaching of Greek and Latin, largely applicable to Sanskrit and Persian.

10. The Teaching of Nature Study and Elementary Science :—

The Teaching of Science in the Elementary School, by Gilbert H. Trafton. Houghton Mifflin. Pp. 293. 1918. \$1.75.

Memorandum on Nature Study and Teaching of Science in Elementary Schools. Scotch Education Department, Wyman and Sons.

Treecraft for Young India, by E. L. King. Epworth League Central Office, Jubbulpore, 1925. Pp. 41. Notebook to accompany the same. Pp. 48. Re. 1-4 for both together.

Birdcraft for Young India, by Joseph Ross and E. L. King. Epworth League Central Office, Jubbulpore, 1923. Pp. 86. Annas 10.

Bird Study in India, by M. R. N. Holmer. Oxford University Press, 2nd. edition, 1926. Pp. 148. Rs. 3.

Birds of an Indian village, by Douglas Dewar. Oxford University Press, 1924. Pp. viii, 132. Rs. 2. Available also in Urdu edition.

11. The Teaching of Physical Training and Hygiene :—

Scouting for Boys in India, by Sir R. Baden Fowell. Pearson, London, 1924. Rs. 2-8.

Handbook for Scoutmasters. Boy Scouts of America, New York. Latest edition. \$1.50.

Medical Instructions to House Fathers, by D. N. Forman, M.D. Published by College Bookstall, Ewing Christian College, Allahabad City, 1925. Pp. 22. Annas 4. Detailed and practical.

A Manual of Physical Education for Girls, by Miss Florence Salzer. Published by Isabella Thoburn College, Lucknow.

Indian Games Handbook. Compiled by J. H. Gray, M.D., Triangle Athletic Series. Association Press, Calcutta, 1918. Pp. 26. Annas 3.

Let's Play by E. L. King. Epworth League Central Office, Jubbulpore. Pp. 28. Rules for 101 games, with hints on how to teach games. Most of the games require little or no equipment. Annas 8. Also available in a Hindi edition called "Khei Khud," from the Methodist Publishing House, Lucknow.

Education by play and games, by G. E. Johnson. Ginn. 1p. 213. \$90.
 Playground and School Compound Games. Compiled by J. H. Gray. M.D. Triangle Athletic Series. Association Press, Calcutta, 1918. Pp. 25. Annas 3. Rules for relay ball, informal and tag games involving little expense.

Army and Navy Athletic Handbook. Prepared by G. J. Fisher, M.D., Association Press, New York, 1919. Available from the Association Press, Calcutta. Pp. 391. Annas 8. Rules for all the major sports, efficiency tests, swimming, and a large amount of other useful material.

A Primer of Tropical Hygiene, by Colonel R. J. Blackham. G. Claridge and Company, Caxton House, Bombay. Latest edition. Pp. 154. Re. 1.

Indian Manual of First-aid, by Colonel R. J. Blackham. G. Claridge and Company, Caxton House, Bombay. Latest edition. Pp. 196. Re. 1-4.

Indian Home Nursing, by Colonel R. J. Blackham. G. Claridge and Company, Caxton House, Bombay. Latest edition. Pp. 236. Re. 1-4.

Games and Recreational Methods, by C. F. Smith. Dodd, Mead and Company, New York, 1924. \$2.00.

Health Posters of the United Provinces Public Health department, Lucknow.

Publications of the Lady Chelmsford Child Welfare League, offices in Delhi, Simla and principal cities (Hindi, Urdu, English), on loan.

Lantern slide lectures to be obtained from the United Provinces Health department, the Lady Chelmsford League, the United Provinces Lantern Lecture Committee (Allahabad), and the Provincial Museum (Lucknow) on terms that may be learned on application.

12. The Teaching of Music :—

Indian Music by H. A. Poply. Heritage of India Series. Association Press, 5, Russell Street, Calcutta. Paper. Re. 1-8.

(6) *List of books recommended by the Board for libraries and prizes.*

English.

1. Tales of India. (Macmillan & Co.).
(Book no. senior 7 and Int. 16 & 17).
2. Stories of Islam, Books I—V (Longmans, Green & Co.).
3. Longman's Easy Indian Stories (6 vols. viz. A. King's Adventure; The Merchant's Daughter; The Two Friends; The Adventures of a Prince; The Four Sisters; A Prince, A Rat and A Ring).
4. Indian Folk Tales (Grade I), Parts I and II (Longmans, Green & Co.).
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